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NEWS 18	AUG 15	CAplus currency for Korean patents enhanced
NEWS 19	AUG 27	CAS definition of basic patents expanded to ensure comprehensive access to substance and sequence information
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NEWS 21	SEP 25	CA/CAplus current-awareness alert options enhanced to accommodate supplemental CAS indexing of exemplified prophetic substances
NEWS 22	SEP 26	WPIDS, WPINDEX, and WPIX coverage of Chinese and and Korean patents enhanced
NEWS 23	SEP 29	IFICLS enhanced with new super search field
NEWS 24	SEP 29	EMBASE and EMBAL enhanced with new search and display fields
NEWS 25	SEP 30	CAS patent coverage enhanced to include exemplified prophetic substances identified in new Japanese-language patents
NEWS 26	OCT 07	EPFULL enhanced with full implementation of EPC2000
NEWS 27	OCT 07	Multiple databases enhanced for more flexible patent number searching

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L1      STRUCTURE UPLOADED

=> que L1

L2   QUE L1

=> s l2 sss full
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FULL SEARCH INITIATED 07:57:43 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    25647 TO ITERATE

100.0% PROCESSED    25647 ITERATIONS                                13 ANSWERS
SEARCH TIME: 00.00.01

L3           13 SEA SSS FUL L1

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L4    SCREEN CREATED

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L5      STRUCTURE UPLOADED

=> que L5 AND L4

L6   QUE L5 AND L4

=> s l6 sss full
FULL SEARCH INITIATED 07:58:13 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    32282 TO ITERATE

100.0% PROCESSED    32282 ITERATIONS                                31 ANSWERS
SEARCH TIME: 00.00.01

L7           31 SEA SSS FUL L5 AND L4

=> d l3

L3   ANSWER 1 OF 13  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   793634-58-9  REGISTRY
ED   Entered STN:  06 Dec 2004
CN   D-xylo-Hexonic acid, 4,6-O-(1-methyldecylidene)-, [4(R),5S]- (9CI)  (CA
     INDEX NAME)
MF   C17 H32 O7
CI   COM
SR   CA
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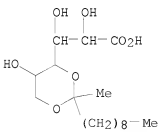


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**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
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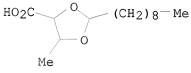
=> d l7

L7 ANSWER 1 OF 31 REGISTRY COPYRIGHT 2008 ACS on STN
RN 783274-37-3 REGISTRY
ED Entered STN: 17 Nov 2004
CN 1,3-Dioxolane-4-carboxylic acid, 5-methyl-2-nonyl- (CA INDEX NAME)
MF C14 H26 O4
CI COM
SR CA



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FILE 'CAPLUS' ENTERED AT 07:58:46 ON 14 OCT 2008
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FILE LAST UPDATED: 12 Oct 2008 (20081012/ED)

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=> s l3
L8 18 L3

=> d l8 1-18 ibib ab

L8 ANSWER 1 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:841740 CAPLUS
DOCUMENT NUMBER: 141:320106
TITLE: Use of cyclic acetals and ketals for improved penetration of drugs through cell and organ barriers
INVENTOR(S): Harder, Achim; Heep, Iris; Herrmann, Stefan; Grunkemeyer, Jeffry-Lynn; Kalbe, Jochen; Mehlhorn, Heinz; Schmidt, Juergen; Schmahl, Guenther
PATENT ASSIGNEE(S): Bayer HealthCare AG, Germany
SOURCE: Ger. Offen., 21 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10314976	A1	20041014	DE 2003-10314976	20030402
CA 2520919	A1	20041014	CA 2004-2520919	20040325
WO 2004087117	A2	20041014	WO 2004-EP3155	20040325
WO 2004087117	A3	20050210		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1613354	A2	20060111	EP 2004-723211	20040325
EP 1613354	B1	20080820		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				
US 20070270503	A1	20071122	US 2007-551882	20070115
PRIORITY APPLN. INFO.:			DE 2003-10314976 A	20030402
			WO 2004-EP3155 W	20040325

OTHER SOURCE(S): MARPAT 141:320106
AB The invention concerns the use of cyclic acetals and ketals for improved penetration of drugs through cell and organ barriers, e.g. blood-brain barrier and placenta barrier. Thus a solution was prepared that contained (g): mebendazole 0.75; 2-nonyl-4-methanol-1,3-dioxalane and 2-nonyl-5-hydroxy-1,3-dioxane at a ratio of 9:1 3.73; N-methylpyrrolidone to 100.

L8 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:346818 CAPLUS
DOCUMENT NUMBER: 138:323055
TITLE: Manufacture of novel sulfate salts of cis- and trans-2-alkyl-5-hydroxy-1,3-dioxanes
INVENTOR(S): Piasecki, Andrzej; Burczyk, Bogdan; Sokolowski, Adam; Kotlewska, Urszula
PATENT ASSIGNEE(S): Politechnika Wroclawska, Pol.
SOURCE: Pol., 6 pp.
CODEN: POXXA7
DOCUMENT TYPE: Patent
LANGUAGE: Polish

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PL 177120	B1	19990930	PL 1995-308929	19950602

PRIORITY APPLN. INFO.: PL 1995-308929 19950602
OTHER SOURCE(S): MARPAT 138:323055
AB Surface-active title salts (I and II; X = Li, K, Cs, Mg, Ca, Ba, ammonium, pyridinium; m = 1, 2; n = 7-13) were manufactured by reacting the parent cis- and/or trans-2-(C7-13-alkyl)-5-hydroxy-1,3-dioxanes with ClSO3H in CCl4 in the presence of pyridine, or with SO3/pyridine complex, then removing the solvent and neutralizing the residue with aqueous alc. solution or suspension of alkali metal or alkaline earth metal hydroxide, carbonate or bicarbonate, or NH4OH. For example, adding 0.0464 mol of SO3/pyridine complex at ambient temperature in portions to a stirred solution of 0.0387 mol of a mixture of cis- and trans-2-undecyl-5-hydroxy-1,3-dioxane in 0.070 dm3 CCl4 and 2 + 10-3 dm3 pyridine, stirring the mixture for 1 h at ambient temperature and 6-8 h at .apprx.310°K gave 89% mol.% of a mixture of cis- and trans-2-undecyl-1,3-dioxane-5-sulfate pyridinium salts, m. 372-376°K and having Krafft point <293° (1% aqueous solution).

L8 ANSWER 3 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:270652 CAPLUS
DOCUMENT NUMBER: 133:336886
TITLE: Synthesis and surface properties of chemodegradable anionic surfactants: diastereomeric (2-n-alkyl-1,3-dioxan-5-yl) sulfates with monovalent counter-ions. [Erratum to document cited in CA132:196127]
AUTHOR(S): Piasecki, Andrzej; Mayhew, Alexandra
CORPORATE SOURCE: Institute of Organic and Polymer Technology, Wroclaw University of Technology, Wroclaw, 50-370, Pol.
SOURCE: Journal of Surfactants and Detergents (2000), 3(2), 237
CODEN: JSDEFL; ISSN: 1097-3958
PUBLISHER: AOCS Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The captions for Figs. 2 and 3 were switched; the corrected figures and their corresponding captions are given.

L8 ANSWER 4 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:51525 CAPLUS
DOCUMENT NUMBER: 132:196127
TITLE: Synthesis and surface properties of chemodegradable anionic surfactants: diastereomeric (2-n-alkyl-1,3-dioxan-5-yl) sulfates with monovalent counter-ions
AUTHOR(S): Piasecki, Andrzej; Mayhew, Alexandra
CORPORATE SOURCE: Institute of Organic and Polymer Technology, Wroclaw University of Technology, Wroclaw, 50-370, Pol.
SOURCE: Journal of Surfactants and Detergents (2000), 3(1), 59-65
CODEN: JSDEFL; ISSN: 1097-3958
PUBLISHER: AOCS Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Sodium, potassium and ammonium cis- and trans-(2-n-alkyl-1,3-dioxan-5-yl)

sulfates 6-8 (alkyl: n-C9H19, 6a-8a, and n-C11H23, 6b-8b) were synthesized in a reaction of aliphatic aldehydes 1a,b with glycerol 2 followed by separation in high yields of individual geometric isomers of cis- and trans-2-n-alkyl-5-hydroxy-1,3-dioxanes, cis-3a,b and trans-3a,b, followed by sulfation with sulfur trioxide-pyridine complex, and finally neutralization with NaOH, KOH, and NH4OH, resp. Phys. data of the compds. and some surface properties of 2-n-nonyl derivs., such as critical micelle concentration (CMC), effectiveness of aqueous surface tension reduction (ΠCMC), surface excess concentration (ΓCMC), and the surface area demand per mol. (ACMC), were determined It was shown that the surface activity of these compds. is influenced both by their geometric structure and by the monovalent counter-ion.

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:450274 CAPLUS
DOCUMENT NUMBER: 131:73660
TITLE: Preparation of long-chain cis- and trans-2-alkyl-5-hydroxy-1,3-dioxanes
INVENTOR(S): Piasecki, Andrzej; Burczyk, Bogdan; Sokolowski, Adam; Kotlewska, Urszula
PATENT ASSIGNEE(S): Politechnika Wroclawska, Pol.
SOURCE: Pol., 4 pp.
CODEN: POXXA7
DOCUMENT TYPE: Patent
LANGUAGE: Polish
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PL 175837	B1	19990226	PL 1994-306515	19941223

PRIORITY APPLN. INFO.: PL 1994-306515 19941223
OTHER SOURCE(S): CASREACT 131:73660; MARPAT 131:73660

AB Diastereoisomers of cyclic glycerol acetals (I; n = 7-13) and their trans-isomers (II), intermediates for the manufacture of surfactants, were prepared by transacetalization of 4-component mixts. of 2 diastereoisomer pairs comprising I, II, cis-2-alkyl-4-hydroxymethyl-1,3-dioxolane (III) and its trans-isomer IV, preferably in hexane/C6H6 mixts., in the presence of p-MeC6H4SO3H catalyst. I and II crystallize together from the reaction mixture and are separated by fractional distillation For example, a solution containing 0.0565 kg of a mixture comprising cis-2-nonyl-5-hydroxy-1,3-dioxane (V) 33, trans-2-nonyl-5-hydroxy-1,3-dioxane (VI) 23, cis-2-nonyl-4-hydroxymethyl-1,3-dioxolane 25 and trans-2-nonyl-4-hydroxymethyl-1,3-dioxolane 19% and 3 + 10-4 kg p-MeC6H4SO3H·H2O in 0.050 dm3 of 80:20 hexane/C6H6 mixture was kept for 2 days at ambient temperature and 5 days at 278 °K to give 0.0352 kg crystals which were separated by filtration, dried a distilled to give V (b. 442 °K/1.33 kPa; m. 320-320.5 °K) and VI (b. 461 °K/1/33 kPa; m. 335-336°).

L8 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:304333 CAPLUS
DOCUMENT NUMBER: 130:311801
TITLE: Preparation of novel sodium sulfates of 1,3-dioxane derivatives

INVENTOR(S): Piasecki, Andrzej; Burczyk, Bogdan; Sokolowski, Adam; Kotlewska, Urszula
PATENT ASSIGNEE(S): Politechnika Wroclawska, Pol.
SOURCE: Pol., 4 pp.
CODEN: POXXA7
DOCUMENT TYPE: Patent
LANGUAGE: Polish
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PL 175563	B1	19990129	PL 1994-306516	19941223

PRIORITY APPLN. INFO.: PL 1994-306516 19941223
OTHER SOURCE(S): MARPAT 130:311801
AB The title compds. [I or II; n = 7-13], potentially useful as surfactants (no data), were prepared by reacting cis-(or trans-)2-alkyl-5-hydroxy-1,3-dioxanes [III or IV] with C1SO3H in CC14 in the presence of pyridine followed by treatment of the intermediate with alc.-H2O solution of NaOH, Na2CO3 or NaHCO3 or by reacting III or IV with C5H5N*SO3 in CC14 followed by treatment of the intermediate with alc.-aqueous solution of NaOH, Na2CO3 or NaHCO3.

L8 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:164886 CAPLUS
DOCUMENT NUMBER: 126:145606
ORIGINAL REFERENCE NO.: 126:28129a,28132a
TITLE: Synthesis, Surface Properties, and Hydrolysis of Chemodegradable Anionic Surfactants: Diastereomerically Pure Sodium cis- and trans-2-n-Alkyl-1,3-dioxan-5-yl Sulfates
AUTHOR(S): Piasecki, Andrzej; Soko-lowski, Adam; Burczyk, Bogdan; Gancarz, Roman; Kotlewska, Urszula
CORPORATE SOURCE: Institute of Organic and Polymer Technology and Institute of Organic Chemistry Biochemistry and Biotechnology, Technical University of Wroc-law, Wroclaw, 50-370, Pol.
SOURCE: Langmuir (1997), 13(6), 1434-1439
CODEN: LANGD5; ISSN: 0743-7463
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A systematic study concerning the synthesis, adsorption, micellization, and hydrolytic decomposition of new, chemodegradable and diastereomerically pure sodium cis- and trans-2-n-alkyl-1,3-dioxan-5-yl sulfates (alkyl: n-C7H15, n-C9H19, and n-C11H23) has been undertaken. Surface parameters of the compds. under study at the aqueous solution/air interface, i.e., surface tension reduction, surface excess concentration, surface area demand per mol., and
standard free energy of adsorption and micellization, show differences both in the alkyl chain length and in the hydrophilic, i.e., sulfate, group configuration at the 1,3-dioxane ring. The cmc values are lower for the trans-isomers than for the cis-isomers, the ΔG°ads and ΔG°cmc values are lower for trans-isomers, and the effectiveness of surface tension reduction is higher for the cis-isomers than for the trans-isomers. The investigated compds. undergo an easy hydrolysis reaction of the acetal function, leading to starting aldehydes and sulfated glycerol. The trans-isomers are hydrolyzed much faster than cis-isomers, and no isomerization reaction of the type cis .dblharw. trans is observed during the hydrolysis process.
REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS

L8 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:763357 CAPLUS
DOCUMENT NUMBER: 126:117936
ORIGINAL REFERENCE NO.: 126:22765a,22768a
TITLE: Acetals and ethers. Part XXII. An efficient method for the preparation of pure long-chain cis- and trans-2-n-alkyl-5-hydroxy-1,2-dioxanes
AUTHOR(S): Piasecki, Andrzej; Burczyk, Bogdan; Sokolowski, Adam; Kotlewska, Urszula
CORPORATE SOURCE: Inst. Org. Polymer Technol., Technical Univ. Wroclaw, Wroclaw, 50-370, Pol.
SOURCE: Synthetic Communications (1996), 26(22), 4145-4151
CODEN: SYNCAV; ISSN: 0039-7911
PUBLISHER: Dekker
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The title compds., e.g., I (R = n-heptyl, n-nonyl, n-undecyl), were obtained with high yields from four-component mixts. of glycerol acetals by combining the transacetalization reaction with the crystallization process followed by fractional distillation
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 9 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:693638 CAPLUS
DOCUMENT NUMBER: 126:103649
ORIGINAL REFERENCE NO.: 126:19997a
TITLE: Polymer-supported acetals as systems for protection and controlled delivery of volatile aldehydes
AUTHOR(S): Ceita, L.; Gavina, P.; Lopez Lavernia, N.; Llopis, C.; Mestres, R.; Tortajada, A.
CORPORATE SOURCE: Departament de Quimica Organica, Universitat de Valencia, Dr. Moliner 50, Burjassot, 46100, Valencia, Spain
SOURCE: Reactive & Functional Polymers (1996), 31(3), 265-272
CODEN: RFPOF6; ISSN: 1381-5148
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Polymer-supported acetals, 2-nonyl-1,3-dioxolane-4-methanol (I) and 2-nonyl-1,3-dioxolane-4-ethanol were prepared on an Merrifield resin support. Hydrolysis of I gave decanal. Decanal was also prepared by hydrolysis of polymer-supported 2-nonyl-4-phenyl-1,3-dioxolane.

L8 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1994:511969 CAPLUS
DOCUMENT NUMBER: 121:111969
ORIGINAL REFERENCE NO.: 121:20181a,20184a
TITLE: New cleavable surfactants derived from glucono-1,5-lactone
AUTHOR(S): Kida, Toshiyuki; Morishima, Nobuaki; Masuyama, Araki; Nakatsuji, Yohji
CORPORATE SOURCE: Fac. Eng., Osaka Univ., Osaka, 565, Japan
SOURCE: Journal of the American Oil Chemists' Society (1994), 71(7), 705-10
CODEN: JAOCA7; ISSN: 0003-021X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB New amido nonionic cleavable surfactants were synthesized in good yields

by the acetalization of glucono-1,5-lactone with octanal, 2-octanone, or 2-undecanone, followed by amidation with monoethanolamine, diethanolamine, or morpholine. These compds. possessed good water solubilities. The compds. derived from 2-octanone showed higher critical micelle concns. than the compds. from octanal. For the same hydrophobic chain, both the micelle-forming property and the ability to lower surface tension increased with the change in the terminal amide group in the order diethanolamide < morpholide < monoethanolamide. In spite of their relatively short hydrophobic chains, these compds. showed greater ability to lower surface tension than conventional nonionic surfactants, such as alc. ethoxylates. Their acid hydrolytic decomposition properties were determined

Their decomposition rates were also compared with that of the corresponding carboxylate type of compound derived from glucono-1,5-lactone.

L8 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1992:2524 CAPLUS
DOCUMENT NUMBER: 116:2524
ORIGINAL REFERENCE NO.: 116:507a,510a
TITLE: Products of the reductive degradation of α-(acyloxy)plasmologens from bovine lipids with lithium aluminum hydride
AUTHOR(S): Lutz, Arnulf; Knoerr, Walter; Spiteller, Gerhard
CORPORATE SOURCE: Univ. Bayreuth, Bayreuth, D-8580, Germany
SOURCE: Liebigs Annalen der Chemie (1991), (11), 1151-5
CODEN: LACHDL; ISSN: 0170-2041
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 116:2524
AB If bovine tissue lipids are treated with LiAlH4, two types of unexpected products are detectable: 1-acylglycerols and α-hydroxylated glycerol acetals. This fact was assumed to indicate the presence of α-(acyloxy)plasmalogens, previously unknown class of mammalian tissue lipids. To confirm this assumption, the model compound possessing an enol ether-enol acetate structure was synthesized and treated with LiAlH4. Corresponding derivs. of 1-acylglycerols as well as α-hydroxylated glycerol acetals were produced, thus confirming the existence of α-(acyloxy)plasmalogens in tissue of natural origin. They are detectable by GC and GC-mass spectrometry after conversion of free hydroxy groups with diazomethane/silica gel into the corresponding Me ether derivs.

L8 ANSWER 12 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1991:503271 CAPLUS
DOCUMENT NUMBER: 115:103271
ORIGINAL REFERENCE NO.: 115:17539a,17542a
TITLE: Liquid crystalline 4,6-O-(n-alkylidene)-D-glucopyranoses
AUTHOR(S): Thiem, Joachim; Vill, Volkmar; Miethchen, Ralf; Peters, Dietmar
CORPORATE SOURCE: Inst. Org. Chem., Univ. Hamburg, Hamburg, W-2000/13, Germany
SOURCE: Journal fuer Praktische Chemie (Leipzig) (1991), 333(1), 173-5
CODEN: JPCEAO; ISSN: 0021-8383
DOCUMENT TYPE: Journal
LANGUAGE: German
AB The preparation and liquid-crystal properties are described of the title compds.

The compds. from smectic A mesophases. The NMR data are given.

L8 ANSWER 13 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1991:62591 CAPLUS
DOCUMENT NUMBER: 114:62591
ORIGINAL REFERENCE NO.: 114:10755a,10758a
TITLE: Preparation of trihydroxycarboxylates bearing a long-chain alkyl acetal group from glucono-1,5-lactone
AUTHOR(S): Kida, Toshiyuki; Masuyama, Araki; Okahara, Mitsuo
CORPORATE SOURCE: Fac. Eng., Osaka Univ., Suita, 565, Japan
SOURCE: Tetrahedron Letters (1990), 31(41), 5939-42
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 114:62591
AB Title compds., e.g., I [R = H, R1 = C11H23; R = Me, R1 = (CH2)nH, n = 8, 9, 11], could be easily prepared by the acetalization of glucono-1,5-lactone with long-chain alkyl carbonyl compds. followed by alkaline hydrolysis. These carboxylates can be utilized as a new type of cleavable surfactant.

L8 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1989:193202 CAPLUS
DOCUMENT NUMBER: 110:193202
ORIGINAL REFERENCE NO.: 110:32093a,32096a
TITLE: Ultrasound-induced reactions. 4. Synthesis and characterization amphiphilic 2,6-O-(n-alkylidene)-D-glucopyranones
AUTHOR(S): Miethchen, Ralf; Peters, Dietmar
CORPORATE SOURCE: Sekt. Chem., Wilhelm-Pieck-Univ., Rostock, DDR-2500, Ger. Dem. Rep.
SOURCE: Zeitschrift fuer Chemie (1988), 28(8), 298-9
CODEN: ZECEAL; ISSN: 0044-2402
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 110:193202
AB Title compds. I (n = 5-8, 10) were prepared from D-glucose and the aldehydes. The reaction was accelerated by ultrasonication. Only I (n = 5,6) were sufficiently soluble in water to attain critical micelle concns. (9.1 and 6.4 mM resp.).

L8 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1989:173583 CAPLUS
DOCUMENT NUMBER: 110:173583
ORIGINAL REFERENCE NO.: 110:28813a,28816a
TITLE: Mutarotation of glucose derivatives in solutions of surfactants in organic solvents: cooperativity and bimodal catalytic behavior
AUTHOR(S): Bethell, Donald; Galsworthy, Peter J.; Jones, Keith
CORPORATE SOURCE: Robert Robinson Lab., Univ. Liverpool, Liverpool, L69 3BX, UK
SOURCE: Journal of the Chemical Society, Perkin Transactions 2: Physical Organic Chemistry (1972-1999) (1988), (12), 2035-43
CODEN: JCPKBH; ISSN: 0300-9580
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 110:173583
AB The mutarotation of glucose, 2,3,4,6-tetra-O-methylglucose, 3-O-hexyl-, 3-O-dodecyl-, 4,6-O-butylidene-, 4,6-O-hexylidene-, and 4,6-O-decylideneglucose has been studied kinetically in aqueous solution and in AOT-heptane , AOT-CHC13, CPC-CHC13, [CPC = N-hexadecylpyridinium chloride], CTAC-CHC13, CPS-CHC13 [CPS = Me(CH2)15N+Me2(CH2)3SO3-] and Me(CH2)15(OCH2CH2)6OH-tetradecane. Below a critical surfactant concentration

mutarotation is undetectably slow, but above it the rate increases, usually in a sigmoidal fashion reaching a maximum at ≥40 mmol L-1. Maximum rates are usually less than those observed in water, except for AOT-containing systems which sometimes give higher rates. The dependence of rate on surfactant concentration does not in general, fit the pseudophase model of micellar catalysis, but can be treated using the cooperativity model of D. Piszkiewicz (1977). This indicates in a number of cases bimodal catalytic behavior, a non-cooperative mode at concns. just above the critical level, and a cooperative mode giving more efficient catalysis at higher concns. In AOT-heptane the bimodal pattern is reversed and evidence suggests that the cooperative effects observed at low surfactant concs. probably represent catalysis in premicellar aggregates.

L8 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1977:551590 CAPLUS
DOCUMENT NUMBER: 87:151590
ORIGINAL REFERENCE NO.: 87:23971a,23974a
TITLE: Acrolein acetals and their derivatives. (II). The structure and isomerization of glycerol acetals
AUTHOR(S): Stefanovic, Gjorgje; Petrovic, Gjorgje
CORPORATE SOURCE: Inst. Chem., Fac. Sci., Belgrade, Yugoslavia
SOURCE: Bulletin - Academie Serbe des Sciences et des Arts, Classe des Sciences Mathematiques et Naturelles: Sciences Naturelles (1976), 54(14), 53-73
CODEN: BASNA6; ISSN: 0352-5740
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The reaction of RCHO (R = C6H13, n-C7H15, n-C7H19, n-C11H23) with HOCH2CH(OH)CH2OH gives mixts. of the corresponding cis- and trans-I with cis- and trans-II. The equilibrium cis-II-trans-II isomerization occurs without ring opening in a process catalyzed by hydride donors or acceptors, in which H- is abstracted from C-2. The isomerization of trans-I to cis-I follows a similar path; this reaction is irreversible as the H-bonded axial OH group in trans-I shields the C-2 carbonium ion and allows hydride abstraction to form only the cis product.

L8 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1976:151024 CAPLUS
DOCUMENT NUMBER: 84:151024
ORIGINAL REFERENCE NO.: 84:24557a,24560a
TITLE: Poly(amide-acetals) and poly(ester-acetals) from polyol acetals of methyl 9(10)-formylstearate: preparation and physical characterization
AUTHOR(S): Awl, R. A.; Neff, W. E.; Weisleder, D.; Pryde, E. H.
CORPORATE SOURCE: North. Reg. Res. Lab., ARS, Peoria, IL, USA
SOURCE: Journal of the American Oil Chemists' Society (1976), 53(1), 20-6
CODEN: JAOCA7; ISSN: 0003-021X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Cyclic and spiro acetal unit-containing polymers are prepared from Me 9(10)-formylstearate pentaerythritol acetal (I), and the corresponding glycerol acetal ester (II) [58697-27-1] and from ethylene bis[9(10)-(methoxymethylene)stearate] (III) [58705-57-0] and N,N'-ethylenebis[9(10)-(dimethoxymethyl)stearamide] (IV) [58705-58-1] using H2N(CH2)nNH2 (n = 2 or 6), HO(CH2)2OH [107-21-1], C(CH2OH)4, or caprolactam as comonomers in the presence of acid or basic catalysts. Polymers (soluble in CHCl3 and THF) prepared were I-HO(CH2)2OH copolymer [58698-85-4], III-C(CH2OH)4 copolymer [58801-61-9], I-H2N(CH2)2NH2 copolymer [58698-77-4], IV-C(CH2OH)4 copolymer [58801-60-8], I-H2N(CH2)6NH2 copolymer [58698-78-5], II homopolymer [58698-79-6

], and 1:2 II-caprolactam copolymer [58698-80-9]. II was prepared from glycerol [56-81-5] and Me 9(10)-formylstearate di-Me acetal (V) [35254-28-5], III from HO(CH2)2OH and Me 9(10)-(methoxymethylene)stearate [35254-27-4], and IV from H2N(CH)2NH2 [107-15-3] and V.

L8 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1968:48985 CAPLUS
DOCUMENT NUMBER: 68:48985
ORIGINAL REFERENCE NO.: 68:9451a,9454a
TITLE: Structure of glycerol acetals
AUTHOR(S): Stefanovic, Djordje; Petrovic, Dj.
CORPORATE SOURCE: Univ. Belgrade, Belgrade, Yugoslavia
SOURCE: Tetrahedron Letters (1967), (33), 3153-9
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Glycerol treated with successive addns. of normal aliphatic aldehydes (C7-C14); the mixture refluxed in xylene in the presence of p-MeC6H4SO3H, heated alone in the presence or absence of catalyst, or refluxed in C5H5N without catalyst; the water of formation eliminated and the products distilled in vacuo gave the following condensation products (I) (n, b.p., and n20D given): 5 (Ia), b0.5 102-14°, 1.4502; 6, b30 183-9°, 1.4509; 7, b15 169-79°, 1.4524; 8, b15 175-85°, 1.4540; 9, b14 182-92, 1.4553; 10 (Ib), b1.0 174-86°, 1.4556; 11, b0.4 170-82° (m. 16-20°), -; 12, b0.7 199-218° (m. 18-22°), -. The separation of all 4 possible geometrical isomers of Ia and of Ib was carried out successfully by chromatog. and by distillation on a Podbielniak column. Thin layer chromatog. on silica gel, elution with 40:7:4 ligroine-Me3COH-EtOAc, and development with iodine, phosphomolybdic acid, and (or) SbCl5 showed the presence of 2 isomers (II, III) as major product when the acetals were prepared under kinetic control, whereas the isomers (IV, V) predominated when the synthesis was under thermodynamic control. The 4 acetals were separated both by gas chromatog. and column chromatog. on silica gel. The separation was effected by distillation and gave a series of isomers I-IV from each of the glycerol acetals. Determination of the ring structure by the method of Hill, Whelen, and Hibbert (CA 22: 3132) showed that IV and V were dioxanes and II and III had dioxolane structure. The determination of the stereochemistry of the 4 isomers of Ia was carried out by ir and N.M.R. spectral analysis.

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'GUS' IS NOT A VALID FORMAT FOR FILE 'CAPLUS'

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HITSTR ------ HIT RN, its text modification, its CA index name, and
              its structure diagram
HITSEQ ------ HIT RN, its text modification, its CA index name, its
              structure diagram, plus NTE and SEQ fields
FHITSTR ----- First HIT RN, its text modification, its CA index name, and
              its structure diagram
FHITSEQ ----- First HIT RN, its text modification, its CA index name, its
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FAM --------- AN, PI and PRAI in table, plus Patent Family data
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IND --------- Indexing data
IPC --------- International Patent Classifications
MAX --------- ALL, plus Patent FAM, RE
PATS -------- PI, SO
SAM --------- CC, SX, TI, ST, IT
SCAN -------- CC, SX, TI, ST, IT (random display, no answer numbers;
              SCAN must be entered on the same line as the DISPLAY,
              e.g., D SCAN or DISPLAY SCAN)
STD --------- BIB, CLASS

IABS -------- ABS, indented with text labels
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IBIB -------- BIB, indented with text labels
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SIBIB ------- IBIB, no citations

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              its structure diagram
FHITSEQ ----- First HIT RN, its text modification, its CA index name, its
              structure diagram, plus NTE and SEQ fields
KWIC -------- Hit term plus 20 words on either side
OCC --------- Number of occurrence of hit term and field in which it occurs

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an arrow prompt (=>).  Examples of formats include: TI; TI,AU; BIB,ST;
TI,IND; TI,SO.  You may specify the format fields in any order and the
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specification.

All of the formats (except for SAM, SCAN, HIT, HITIND, HITRN, HITSTR,
FHITSTR, HITSEQ, FHITSEQ, KWIC, and OCC) may be used with DISPLAY ACC
to view a specified Accession Number.
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The following are valid formats:

ABS --------- GI and AB
ALL --------- BIB, AB, IND, RE
APPS -------- AI, PRAI
BIB --------- AN, plus Bibliographic Data and PI table (default)
CAN --------- List of CA abstract numbers without answer numbers
CBIB -------- AN, plus Compressed Bibliographic Data
CLASS ------- IPC, NCL, ECLA, FTERM
DALL -------- ALL, delimited (end of each field identified)
DMAX -------- MAX, delimited for post-processing
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SAM --------- CC, SX, TI, ST, IT
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              SCAN must be entered on the same line as the DISPLAY,
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STD --------- BIB, CLASS

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              structure diagram, plus NTE and SEQ fields
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              its structure diagram
FHITSEQ ----- First HIT RN, its text modification, its CA index name, its
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KWIC -------- Hit term plus 20 words on either side
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an arrow prompt (=>).  Examples of formats include: TI; TI,AU; BIB,ST;
TI,IND; TI,SO.  You may specify the format fields in any order and the
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L2             QUE L1
L3          13 S L2 SSS FULL
L4             SCREEN 963
L5             STRUCTURE UPLOADED
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L6              QUE L5 AND L4
L7           31 S L6 SSS FULL

     FILE 'CAPLUS' ENTERED AT 07:58:46 ON 14 OCT 2008
L8           18 S L3

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L9           18 L8 AND PY<=2004

=> s l8 and py<=2003
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L10          17 L8 AND PY<=2003

=> d 1-18 ibib ab hitstr

L8   ANSWER 1 OF 18  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         2004:841740  CAPLUS
DOCUMENT NUMBER:          141:320106
TITLE:                    Use of cyclic acetals and ketals for improved
                          penetration of drugs through cell and organ barriers
INVENTOR(S):              Harder, Achim; Heep, Iris; Herrmann, Stefan;
                          Grunkemeyer, Jeffry-Lynn; Kalbe, Jochen; Mehlhorn,
                          Heinz; Schmidt, Juergen; Schmahl, Guenther
PATENT ASSIGNEE(S):       Bayer HealthCare AG, Germany
SOURCE:                   Ger. Offen., 21 pp.
                          CODEN: GWXXBX
DOCUMENT TYPE:            Patent
LANGUAGE:                 German
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.            KIND   DATE        APPLICATION NO.          DATE
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     DE 10314976            A1    20041014    DE 2003-10314976         20030402
     CA 2520919             A1    20041014    CA 2004-2520919          20040325
     WO 2004087117          A2    20041014    WO 2004-EP3155           20040325
     WO 2004087117          A3    20050210
          W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
              CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
              GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
              LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
              NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
              TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
          RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
              BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
              ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
              SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
              TD, TG
     EP 1613354             A2    20060111    EP 2004-723211           20040325
     EP 1613354             B1    20080820
          R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK
     US 20070270503         A1    20071122    US 2007-551882           20070115
PRIORITY APPLN. INFO.:                         DE 2003-10314976     A   20030402
                                               WO 2004-EP3155       W   20040325
OTHER SOURCE(S):          MARPAT 141:320106
AB   The invention concerns the use of cyclic acetals and ketals for improved
     penetration of drugs through cell and organ barriers, e.g. blood-brain
     barrier and placenta barrier.  Thus a solution was prepared that contained (g):
     mebendazole 0.75; 2-nonyl-4-methanol-1,3-dioxalane and
```

2-nonyl-5-hydroxy-1,3-dioxane at a ratio of 9:1 3.73; N-methylpyrrolidone to 100.

IT 185902-72-1
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(use of cyclic acetals and ketals for improved penetration of drugs through cell and organ barriers)

RN 185902-72-1 CAPLUS

CN 1,3-Dioxan-5-ol, 2-nonyl- (CA INDEX NAME)

L8 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:346818 CAPLUS

DOCUMENT NUMBER: 138:323055

TITLE: Manufacture of novel sulfate salts of cis- and trans-2-alkyl-5-hydroxy-1,3-dioxanes

INVENTOR(S): Piasecki, Andrzej; Burczyk, Bogdan; Sokolowski, Adam; Kotlewska, Urszula

PATENT ASSIGNEE(S): Politechnika Wroclawska, Pol.

SOURCE: Pol., 6 pp.
CODEN: POXXA7

DOCUMENT TYPE: Patent

LANGUAGE: Polish

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PL 177120	B1	19990930	PL 1995-308929	19950602

PRIORITY APPLN. INFO.: PL 1995-308929 19950602

OTHER SOURCE(S): MARPAT 138:323055

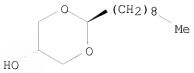
AB Surface-active title salts (I and II; X = Li, K, Cs, Mg, Ca, Ba, ammonium, pyridinium; m = 1, 2; n = 7-13) were manufactured by reacting the parent cis- and/or trans-2-(C7-13-alkyl)-5-hydroxy-1,3-dioxanes with ClSO3H in CCl4 in the presence of pyridine, or with SO3/pyridine complex, then removing the solvent and neutralizing the residue with aqueous alc. solution or suspension of alkali metal or alkaline earth metal hydroxide, carbonate or bicarbonate, or NH4OH. For example, adding 0.0464 mol of SO3/pyridine complex at ambient temperature in portions to a stirred solution of 0.0387 mol of a mixture of cis- and trans-2-undecyl-5-hydroxy-1,3-dioxane in 0.070 dm3 CCl4 and 2 + 10-3 dm3 pyridine, stirring the mixture for 1 h at ambient temperature and 6-8 h at .apprx.310°K gave 89% mol.% of a mixture of cis- and trans-2-undecyl-1,3-dioxane-5-sulfate pyridinium salts, m. 372-376°K and having Krafft point <293° (1% aqueous solution).

IT 18445-27-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(sulfation; manufacture of novel sulfate salts of cis- and trans-alkyl(hydroxy)dioxanes)

RN 18445-27-7 CAPLUS

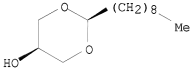
CN 1,3-Dioxan-5-ol, 2-nonyl-, trans- (CA INDEX NAME)

Relative stereochemistry.



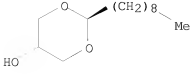
L8 ANSWER 3 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:270652 CAPLUS
DOCUMENT NUMBER: 133:336886
TITLE: Synthesis and surface properties of chemodegradable anionic surfactants: diastereomeric (2-n-alkyl-1,3-dioxan-5-yl) sulfates with monovalent counter-ions. [Erratum to document cited in CA132:196127]
AUTHOR(S): Piasecki, Andrzej; Mayhew, Alexandra
CORPORATE SOURCE: Institute of Organic and Polymer Technology, Wroclaw University of Technology, Wroclaw, 50-370, Pol.
SOURCE: Journal of Surfactants and Detergents (2000), 3(2), 237
CODEN: JSDEFL; ISSN: 1097-3958
PUBLISHER: AOCS Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The captions for Figs. 2 and 3 were switched; the corrected figures and their corresponding captions are given.
IT 18445-26-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(in surfactant preparation; synthesis and surface properties of chemodegradable diastereomeric (alkyldioxanyl) sulfate anionic surfactants with monovalent counter-ions (Erratum))
RN 18445-26-6 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, cis- (CA INDEX NAME)

Relative stereochemistry.



IT 18445-27-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis and surface properties of chemodegradable diastereomeric (alkyldioxanyl) sulfate anionic surfactants with monovalent counter-ions (Erratum))
RN 18445-27-7 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, trans- (CA INDEX NAME)

Relative stereochemistry.



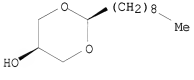
L8 ANSWER 4 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:51525 CAPLUS
DOCUMENT NUMBER: 132:196127
TITLE: Synthesis and surface properties of chemodegradable anionic surfactants: diastereomeric (2-n-alkyl-1,3-dioxan-5-yl) sulfates with monovalent counter-ions
AUTHOR(S): Piasecki, Andrzej; Mayhew, Alexandra
CORPORATE SOURCE: Institute of Organic and Polymer Technology, Wroclaw University of Technology, Wroclaw, 50-370, Pol.
SOURCE: Journal of Surfactants and Detergents (2000), 3(1), 59-65
CODEN: JSDEFL; ISSN: 1097-3958
PUBLISHER: AOCS Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Sodium, potassium and ammonium cis- and trans-(2-n-alkyl-1,3-dioxan-5-yl) sulfates 6-8 (alkyl: n-C9H19, 6a-8a, and n-C11H23, 6b-8b) were synthesized in a reaction of aliphatic aldehydes 1a,b with glycerol 2 followed by separation in high yields of individual geometric isomers of cis- and trans-2-n-alkyl-5-hydroxy-1,3-dioxanes, cis-3a,b and trans-3a,b, followed by sulfation with sulfur trioxide-pyridine complex, and finally neutralization with NaOH, KOH, and NH4OH, resp. Phys. data of the compds. and some surface properties of 2-n-nonyl derivs., such as critical micelle concentration (CMC), effectiveness of aqueous surface tension reduction (ΠCMC), surface excess concentration (ΓCMC), and the surface area demand per mol. (ACMC), were determined It was shown that the surface activity of these compds. is influenced both by their geometric structure and by the monovalent counter-ion.

IT 18445-26-6P 18445-27-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(in surfactant preparation; synthesis and surface properties of chemodegradable diastereomeric (alkyldioxanyl) sulfate anionic surfactants with monovalent counter-ions)

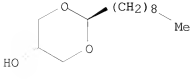
RN 18445-26-6 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, cis- (CA INDEX NAME)

Relative stereochemistry.



RN 18445-27-7 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, trans- (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:450274 CAPLUS
DOCUMENT NUMBER: 131:73660
TITLE: Preparation of long-chain cis- and trans-2-alkyl-5-hydroxy-1,3-dioxanes
INVENTOR(S): Piasecki, Andrzej; Burczyk, Bogdan; Sokolowski, Adam; Kotlewska, Urszula
PATENT ASSIGNEE(S): Politechnika Wroclawska, Pol.
SOURCE: Pol., 4 pp.
CODEN: POXXA7
DOCUMENT TYPE: Patent
LANGUAGE: Polish
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PL 175837	B1	19990226	PL 1994-306515	19941223

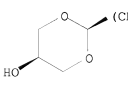
PRIORITY APPLN. INFO.: PL 1994-306515 19941223
OTHER SOURCE(S): CASREACT 131:73660; MARPAT 131:73660

AB Diastereoisomers of cyclic glycerol acetals (I; n = 7-13) and their trans-isomers (II), intermediates for the manufacture of surfactants, were prepared by transacetalization of 4-component mixts. of 2 diastereoisomer pairs comprising I, II, cis-2-alkyl-4-hydroxymethyl-1,3-dioxolane (III) and its trans-isomer IV, preferably in hexane/C6H6 mixts., in the presence of p-MeC6H4SO3H catalyst. I and II crystallize together from the reaction mixture and are separated by fractional distillation For example, a solution containing 0.0565 kg of a mixture comprising cis-2-nonyl-5-hydroxy-1,3-dioxane (V) 33, trans-2-nonyl-5-hydroxy-1,3-dioxane (VI) 23, cis-2-nonyl-4-hydroxymethyl-1,3-dioxolane 25 and trans-2-nonyl-4-hydroxymethyl-1,3-dioxolane 19% and 3 + 10-4 kg p-MeC6H4SO3H·H2O in 0.050 dm3 of 80:20 hexane/C6H6 mixture was kept for 2 days at ambient temperature and 5 days at 278 °K to give 0.0352 kg crystals which were separated by filtration, dried a distilled to give V (b. 442 °K/1.33 kPa; m. 320-320.5 °K) and VI (b. 461 °K/1/33 kPa; m. 335-336°).

IT 18445-26-6P 18445-27-7P
RL: PUR (Purification or recovery); PREP (Preparation)
(preparation of long-chain cis- and trans-2-alkyl-5-hydroxy-1,3-dioxanes by transacetalization with cis- and trans-2-alkyl-4-hydroxymethyl-1,3-dioxolanes)

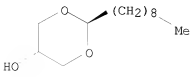
RN 18445-26-6 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, cis- (CA INDEX NAME)

Relative stereochemistry.



RN 18445-27-7 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, trans- (CA INDEX NAME)

Relative stereochemistry.

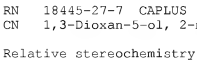


L8 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:304333 CAPLUS
DOCUMENT NUMBER: 130:311801
TITLE: Preparation of novel sodium sulfates of 1,3-dioxane derivatives
INVENTOR(S): Piasecki, Andrzej; Burczyk, Bogdan; Sokolowski, Adam; Kotlewska, Urszula
PATENT ASSIGNEE(S): Politechnika Wroclawska, Pol.
SOURCE: Pol., 4 pp.
CODEN: POXXA7
DOCUMENT TYPE: Patent
LANGUAGE: Polish
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PL 175563	B1	19990129	PL 1994-306516	19941223

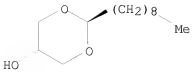
PRIORITY APPLN. INFO.: PL 1994-306516 19941223
OTHER SOURCE(S): MARPAT 130:311801
AB The title compds. [I or II; n = 7-13], potentially useful as surfactants (no data), were prepared by reacting cis-(or trans-)2-alkyl-5-hydroxy-1,3-dioxanes [III or IV] with ClSO3H in CCl4 in the presence of pyridine followed by treatment of the intermediate with alc.-H2O solution of NaOH, Na2CO3 or NaHCO3 or by reacting III or IV with C5H5N*SO3 in CCl4 followed by treatment of the intermediate with alc.-aqueous solution of NaOH, Na2CO3 or NaHCO3.
IT 18445-26-6 18445-27-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of novel sodium sulfates of 1,3-dioxane derivs.)
RN 18445-26-6 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, cis- (CA INDEX NAME)

Relative stereochemistry.



RN 18445-27-7 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, trans- (CA INDEX NAME)

Relative stereochemistry.

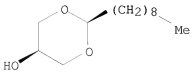


L8 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:164886 CAPLUS
DOCUMENT NUMBER: 126:145606
ORIGINAL REFERENCE NO.: 126:28129a,28132a
TITLE: Synthesis, Surface Properties, and Hydrolysis of Chemodegradable Anionic Surfactants: Diastereomerically Pure Sodium cis- and trans-2-n-Alkyl-1,3-dioxan-5-yl Sulfates
AUTHOR(S): Piasecki, Andrzej; Soko-lowski, Adam; Burczyk, Bogdan; Gancarz, Roman; Kotlewska, Urszula
CORPORATE SOURCE: Institute of Organic and Polymer Technology and Institute of Organic Chemistry Biochemistry and Biotechnology, Technical University of Wroc-law, Wroclaw, 50-370, Pol.
SOURCE: Langmuir (1997), 13(6), 1434-1439
CODEN: LANGD5; ISSN: 0743-7463
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A systematic study concerning the synthesis, adsorption, micellization, and hydrolytic decomposition of new, chemodegradable and diastereomerically pure sodium cis- and trans-2-n-alkyl-1,3-dioxan-5-yl sulfates (alkyl: n-C7H15, n-C9H19, and n-C11H23) has been undertaken. Surface parameters of the compds. under study at the aqueous solution/air interface, i.e., surface tension reduction, surface excess concentration, surface area demand per mol., and standard free energy of adsorption and micellization, show differences both in the alkyl chain length and in the hydrophilic, i.e., sulfate, group configuration at the 1,3-dioxane ring. The cmc values are lower for the trans-isomers than for the cis-isomers, the ΔG°ads and ΔG°cmc values are lower for trans-isomers, and the effectiveness of surface tension reduction is higher for the cis-isomers than for the trans-isomers. The investigated compds. undergo an easy hydrolysis reaction of the acetal function, leading to starting aldehydes and sulfated glycerol. The trans-isomers are hydrolyzed much faster than cis-isomers, and no isomerization reaction of the type cis .dblharw. trans is observed during the hydrolysis process.

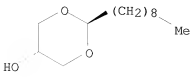
IT 18445-26-6 18445-27-7
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
(intermediate; synthesis, surface properties, and hydrolysis of chemodegradable sodium cis- and trans-2-n-alkyl-1,3-dioxan-5-yl sulfate anionic surfactants)
RN 18445-26-6 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, cis- (CA INDEX NAME)

Relative stereochemistry.



RN 18445-27-7 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, trans- (CA INDEX NAME)

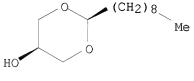
Relative stereochemistry.



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

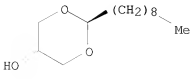
L8 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:763357 CAPLUS
DOCUMENT NUMBER: 126:117936
ORIGINAL REFERENCE NO.: 126:22765a,22768a
TITLE: Acetals and ethers. Part XXII. An efficient method for the preparation of pure long-chain cis- and trans-2-n-alkyl-5-hydroxy-1,2-dioxanes
AUTHOR(S): Piasecki, Andrzej; Burczyk, Bogdan; Sokolowski, Adam; Kotlewska, Urszula
CORPORATE SOURCE: Inst. Org. Polymer Technol., Technical Univ. Wroclaw, Wroclaw, 50-370, Pol.
SOURCE: Synthetic Communications (1996), 26(22), 4145-4151
CODEN: SYNCAV; ISSN: 0039-7911
PUBLISHER: Dekker
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The title compds., e.g., I (R = n-heptyl, n-nonyl, n-undecyl), were obtained with high yields from four-component mixts. of glycerol acetals by combining the transacetalization reaction with the crystallization process followed by fractional distillation
IT 18445-26-6P 18445-27-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of long-chain alkylhydroxydioxanes)
RN 18445-26-6 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, cis- (CA INDEX NAME)

Relative stereochemistry.



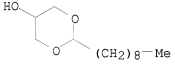
RN 18445-27-7 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, trans- (CA INDEX NAME)

Relative stereochemistry.

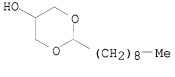


REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 9 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:693638 CAPLUS
DOCUMENT NUMBER: 126:103649
ORIGINAL REFERENCE NO.: 126:19997a
TITLE: Polymer-supported acetals as systems for protection and controlled delivery of volatile aldehydes
AUTHOR(S): Ceita, L.; Gavina, P.; Lopez Lavernia, N.; Llopis, C.; Mestres, R.; Tortajada, A.
CORPORATE SOURCE: Departament de Quimica Organica, Universitat de Valencia, Dr. Moliner 50, Burjassot, 46100, Valencia, Spain
SOURCE: Reactive & Functional Polymers (1996), 31(3), 265-272
CODEN: RFPOF6; ISSN: 1381-5148
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Polymer-supported acetals, 2-nonyl-1,3-dioxolane-4-methanol (I) and 2-nonyl-1,3-dioxolane-4-ethanol were prepared on an Merrifield resin support. Hydrolysis of I gave decanal. Decanal was also prepared by hydrolysis of polymer-supported 2-nonyl-4-phenyl-1,3-dioxolane.
IT 185902-72-1DP, polymer-supported 185902-72-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of aldehydes via hydrolysis of polymer-supported acetals)
RN 185902-72-1 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl- (CA INDEX NAME)



RN 185902-72-1 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl- (CA INDEX NAME)



L8 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1994:511969 CAPLUS
DOCUMENT NUMBER: 121:111969
ORIGINAL REFERENCE NO.: 121:20181a,20184a
TITLE: New cleavable surfactants derived from glucono-1,5-lactone
AUTHOR(S): Kida, Toshiyuki; Morishima, Nobuaki; Masuyama, Araki; Nakatsuji, Yohji
CORPORATE SOURCE: Fac. Eng., Osaka Univ., Osaka, 565, Japan
SOURCE: Journal of the American Oil Chemists' Society (1994), 71(7), 705-10
CODEN: JAOCA7; ISSN: 0003-021X
DOCUMENT TYPE: Journal

LANGUAGE: English

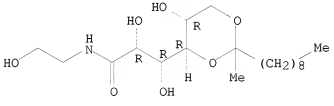
AB New amido nonionic cleavable surfactants were synthesized in good yields by the acetalization of glucono-1,5-lactone with octanal, 2-octanone, or 2-undecanone, followed by amidation with monoethanolamine, diethanolamine, or morpholine. These compds. possessed good water solubilities. The compds. derived from 2-octanone showed higher critical micelle concns. than the compds. from octanal. For the same hydrophobic chain, both the micelle-forming property and the ability to lower surface tension increased with the change in the terminal amide group in the order diethanolamide < morpholide < monoethanolamide. In spite of their relatively short hydrophobic chains, these compds. showed greater ability to lower surface tension than conventional nonionic surfactants, such as alc. ethoxylates. Their acid hydrolytic decomposition properties were determined
Their decomposition rates were also compared with that of the corresponding carboxylate type of compound derived from glucono-1,5-lactone.

IT 156997-83-0P 156997-84-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and surfactant properties of)

RN 156997-83-0 CAPLUS

CN D-Gluconamide, N-(2-hydroxyethyl)-4,6-O-(1-methyldecylidene)- (CA INDEX NAME)

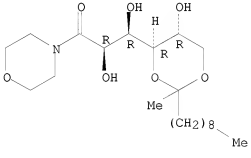
Absolute stereochemistry.



RN 156997-84-1 CAPLUS

CN Morpholine, 4-[4,6-O-(1-methyldecylidene)-D-gluconoyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN

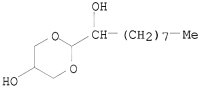
ACCESSION NUMBER: 1992:2524 CAPLUS

DOCUMENT NUMBER: 116:2524

ORIGINAL REFERENCE NO.: 116:507a,510a

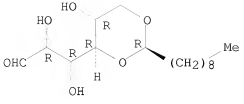
TITLE: Products of the reductive degradation of α-(acyloxy)plasmologens from bovine lipids with lithium aluminum hydride

AUTHOR(S): Lutz, Arnulf; Knoerr, Walter; Spiteller, Gerhard
CORPORATE SOURCE: Univ. Bayreuth, Bayreuth, D-8580, Germany
SOURCE: Liebigs Annalen der Chemie (1991), (11), 1151-5
CODEN: LACHDL; ISSN: 0170-2041
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 116:2524
AB If bovine tissue lipids are treated with LiAlH4, two types of unexpected products are detectable: 1-acylglycerols and α-hydroxylated glycerol acetals. This fact was assumed to indicate the presence of α-(acyloxy)plasmalogens, previously unknown class of mammalian tissue lipids. To confirm this assumption, the model compound possessing an enol ether-enol acetate structure was synthesized and treated with LiAlH4. Corresponding derivs. of 1-acylglycerols as well as α-hydroxylated glycerol acetals were produced, thus confirming the existence of α-(acyloxy)plasmalogens in tissue of natural origin. They are detectable by GC and GC-mass spectrometry after conversion of free hydroxy groups with diazomethane/silica gel into the corresponding Me ether derivs.
IT 136132-47-3P
RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, in acyloxyplasmalogen reductive degradation)
RN 136132-47-3 CAPLUS
CN 1,3-Dioxane-2-methanol, 5-hydroxy-α-octyl- (CA INDEX NAME)

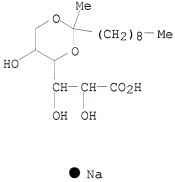


L8 ANSWER 12 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1991:503271 CAPLUS
DOCUMENT NUMBER: 115:103271
ORIGINAL REFERENCE NO.: 115:17539a,17542a
TITLE: Liquid crystalline 4,6-O-(n-alkylidene)-D-glucopyranoses
AUTHOR(S): Thiem, Joachim; Vill, Volkmar; Miethchen, Ralf; Peters, Dietmar
CORPORATE SOURCE: Inst. Org. Chem., Univ. Hamburg, Hamburg, W-2000/13, Germany
SOURCE: Journal fuer Praktische Chemie (Leipzig) (1991), 333(1), 173-5
CODEN: JPCEAO; ISSN: 0021-8383
DOCUMENT TYPE: Journal
LANGUAGE: German
AB The preparation and liquid-crystal properties are described of the title compds.
The compds. from smectic A mesophases. The NMR data are given.
IT 120293-96-1P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(liquid crystal, preparation and NMR of)
RN 120293-96-1 CAPLUS
CN D-Glucose, 4,6-O-decylidene-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 13 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1991:62591 CAPLUS
DOCUMENT NUMBER: 114:62591
ORIGINAL REFERENCE NO.: 114:10755a,10758a
TITLE: Preparation of trihydroxycarboxylates bearing a long-chain alkyl acetal group from glucono-1,5-lactone
AUTHOR(S): Kida, Toshiyuki; Masuyama, Araki; Okahara, Mitsuo
CORPORATE SOURCE: Fac. Eng., Osaka Univ., Suita, 565, Japan
SOURCE: Tetrahedron Letters (1990), 31(41), 5939-42
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 114:62591
AB Title compds., e.g., I [R = H, R1 = C11H23; R = Me, R1 = (CH2)nH, n = 8, 9, 11], could be easily prepared by the acetalization of glucono-1,5-lactone with long-chain alkyl carbonyl compds. followed by alkaline hydrolysis. These carboxylates can be utilized as a new type of cleavable surfactant.
IT 131549-95-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 131549-95-6 CAPLUS
CN D-xylo-Hexonic acid, 4,6-O-(1-methyldecylidene)-, monosodium salt, [4(R),5ξ]- (9CI) (CA INDEX NAME)

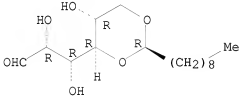


● Na

L8 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1989:193202 CAPLUS
DOCUMENT NUMBER: 110:193202
ORIGINAL REFERENCE NO.: 110:32093a,32096a
TITLE: Ultrasound-induced reactions. 4. Synthesis and characterization amphiphilic 2,6-O-(n-alkylidene)-D-glucopyranones
AUTHOR(S): Miethchen, Ralf; Peters, Dietmar
CORPORATE SOURCE: Sekt. Chem., Wilhelm-Pieck-Univ., Rostock, DDR-2500,

Ger. Dem. Rep.
SOURCE: Zeitschrift fuer Chemie (1988), 28(8), 298-9
CODEN: ZECEAL; ISSN: 0044-2402
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 110:193202
AB Title compds. I (n = 5-8, 10) were prepared from D-glucose and the aldehydes. The reaction was accelerated by ultrasonication. Only I (n = 5,6) were sufficiently soluble in water to attain critical micelle concns. (9.1 and 6.4 mM resp.).
IT 120293-96-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation, acetylation, and micelle formation of)
RN 120293-96-1 CAPLUS
CN D-Glucose, 4,6-O-decylidene-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



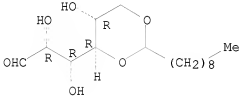
L8 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1989:173583 CAPLUS
DOCUMENT NUMBER: 110:173583
ORIGINAL REFERENCE NO.: 110:28813a,28816a
TITLE: Mutarotation of glucose derivatives in solutions of surfactants in organic solvents: cooperativity and bimodal catalytic behavior
AUTHOR(S): Bethell, Donald; Galsworthy, Peter J.; Jones, Keith
CORPORATE SOURCE: Robert Robinson Lab., Univ. Liverpool, Liverpool, L69 3BX, UK
SOURCE: Journal of the Chemical Society, Perkin Transactions 2: Physical Organic Chemistry (1972-1999) (1988), (12), 2035-43
CODEN: JCPKBH; ISSN: 0300-9580
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 110:173583
AB The mutarotation of glucose, 2,3,4,6-tetra-O-methylglucose, 3-O-hexyl-, 3-O-dodecyl-, 4,6-O-butylidene-, 4,6-O-hexylidene-, and 4,6-O-decylideneglucose has been studied kinetically in aqueous solution and in AOT-heptane , AOT-CHCl3, CPC-CHCl3, [CPC = N-hexadecylpyridinium chloride], CTAC-CHCl3, CPS-CHCl3 [CPS = Me(CH2)15N+Me2(CH2)3SO3-] and Me(CH2)15(OCH2CH2)6OH-tetradecane. Below a critical surfactant concentration mutarotation is undetectably slow, but above it the rate increases, usually in a sigmoidal fashion reaching a maximum at ≥40 mmol L-1. Maximum rates are usually less than those observed in water, except for AOT-containing systems which sometimes give higher rates. The dependence of rate on surfactant concentration does not in general, fit the pseudophase model of micellar catalysis, but can be treated using the cooperativity model of D. Piszkiewicz (1977). This indicates in a number of cases bimodal catalytic behavior, a non-cooperative mode at concns. just above the critical level, and a cooperative mode giving more efficient catalysis at higher concns.

In AOT-heptane the bimodal pattern is reversed and evidence suggests that the cooperative effects observed at low surfactant concs. probably represent catalysis in premicellar aggregates.

IT 119991-23-0P, 4,6-O-Decylidene-D-glucose
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and mutarotation of, in aqueous solution and in surfactant-organic solvent system)

RN 119991-23-0 CAPLUS
CN D-Glucose, 4,6-O-decylidene- (CA INDEX NAME)

Absolute stereochemistry.



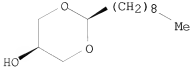
L8 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1977:551590 CAPLUS
DOCUMENT NUMBER: 87:151590
ORIGINAL REFERENCE NO.: 87:23971a,23974a
TITLE: Acrolein acetals and their derivatives. (II). The structure and isomerization of glycerol acetals
AUTHOR(S): Stefanovic, Gjorgje; Petrovic, Gjorgje
CORPORATE SOURCE: Inst. Chem., Fac. Sci., Belgrade, Yugoslavia
SOURCE: Bulletin - Academie Serbe des Sciences et des Arts, Classe des Sciences Mathematiques et Naturelles: Sciences Naturelles (1976), 54(14), 53-73
CODEN: BASNA6; ISSN: 0352-5740
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The reaction of RCHO (R = C6H13, n-C7H15, n-C7H19, n-C11H23) with HOCH2CH(OH)CH2OH gives mixts. of the corresponding cis- and trans-I with cis- and trans-II. The equilibrium cis-II-trans-II isomerization occurs without ring opening in a process catalyzed by hydride donors or acceptors, in which H- is abstracted from C-2. The isomerization of trans-I to cis-I follows a similar path; this reaction is irreversible as the H-bonded axial OH group in trans-I shields the C-2 carbonium ion and allows hydride abstraction to form only the cis product.

IT 18445-26-6P 18445-27-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and isomerization of, mechanism of)

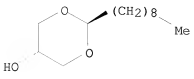
RN 18445-26-6 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, cis- (CA INDEX NAME)

Relative stereochemistry.

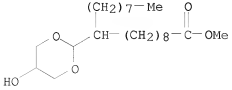


RN 18445-27-7 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, trans- (CA INDEX NAME)

Relative stereochemistry.



L8 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1976:151024 CAPLUS
DOCUMENT NUMBER: 84:151024
ORIGINAL REFERENCE NO.: 84:24557a,24560a
TITLE: Poly(amide-acetals) and poly(ester-acetals) from polyol acetals of methyl 9(10)-formylstearate: preparation and physical characterization
AUTHOR(S): Awl, R. A.; Neff, W. E.; Weisleder, D.; Pryde, E. H.
CORPORATE SOURCE: North. Reg. Res. Lab., ARS, Peoria, IL, USA
SOURCE: Journal of the American Oil Chemists' Society (1976), 53(1), 20-6
CODEN: JAOCA7; ISSN: 0003-021X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Cyclic and spiro acetal unit-containing polymers are prepared from Me 9(10)-formylstearate pentaerythritol acetal (I), and the corresponding glycerol acetal ester (II) [58697-27-1] and from ethylene bis[9(10)-(methoxymethylene)stearate] (III) [58705-57-0] and N,N'-ethylenebis[9(10)-(dimethoxymethyl)stearamide] (IV) [58705-58-1] using H2N(CH2)nNH2 (n = 2 or 6), HO(CH2)2OH [107-21-1], C(CH2OH)4, or caprolactam as comonomers in the presence of acid or basic catalysts. Polymers (soluble in CHCl3 and THF) prepared were I-HO(CH2)2OH copolymer [58698-85-4], III-C(CH2OH)4 copolymer [58801-61-9], I-H2N(CH2)2NH2 copolymer [58698-77-4], IV-C(CH2OH)4 copolymer [58801-60-8], I-H2N(CH2)6NH2 copolymer [58698-78-5], II homopolymer [58698-79-6], and 1:2 II-caprolactam copolymer [58698-80-9]. II was prepared from glycerol [56-81-5] and Me 9(10)-formylstearate di-Me acetal (V) [35254-28-5], III from HO(CH2)2OH and Me 9(10)-(methoxymethylene)stearate [35254-27-4], and IV from H2N(CH)2NH2 [107-15-3] and V.
IT 58697-28-2P 58698-79-6P 58698-80-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 58697-28-2 CAPLUS
CN 1,3-Dioxane-2-decanoic acid, 5-hydroxy-.alpha.-octyl-, methyl ester (CA INDEX NAME)



RN 58698-79-6 CAPLUS
CN 1,3-Dioxane-2-decanoic acid, 5-hydroxy-.alpha.-octyl-, methyl ester, polymer with methyl 5-hydroxy-.beta.-nonyl-1,3-dioxane-2-nonanoate (9CI)

(CA INDEX NAME)

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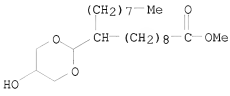
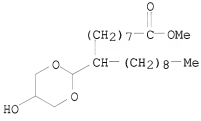
CRN 58697-28-2
CMF C23 H44 O5



CM 2

CRN 58697-27-1
CMF C23 H44 O5



RN 58698-80-9 CAPLUS
CN 1,3-Dioxane-2-decanoic acid, 5-hydroxy-α-octyl-, methyl ester, polymer with hexahydro-2H-azepin-2-one and methyl 5-hydroxy-θ-nonyl-1,3-dioxane-2-nonanoate (9CI) (CA INDEX NAME)

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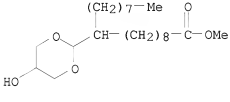
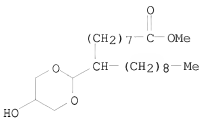
CRN 58697-28-2
CMF C23 H44 O5



CM 2

CRN 58697-27-1
CMF C23 H44 O5



CM 3

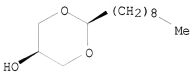
CRN 105-60-2
CMF C6 H11 N O

L8 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1968:48985 CAPLUS
DOCUMENT NUMBER: 68:48985
ORIGINAL REFERENCE NO.: 68:9451a,9454a
TITLE: Structure of glycerol acetals
AUTHOR(S): Stefanovic, Djordje; Petrovic, Dj.
CORPORATE SOURCE: Univ. Belgrade, Belgrade, Yugoslavia
SOURCE: Tetrahedron Letters (1967), (33), 3153-9
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Glycerol treated with successive addns. of normal aliphatic aldehydes (C7-C14); the mixture refluxed in xylene in the presence of p-MeC6H4SO3H, heated alone in the presence or absence of catalyst, or refluxed in C5H5N without catalyst; the water of formation eliminated and the products distilled in vacuo gave the following condensation products (I) (n, b.p., and n20D given): 5 (Ia), b0.5 102-14°, 1.4502; 6, b30 183-9°, 1.4509; 7, b15 169-79°, 1.4524; 8, b15 175-85°, 1.4540; 9, b14 182-92, 1.4553; 10 (Ib), b1.0 174-86°, 1.4556; 11, b0.4 170-82° (m. 16-20°), -; 12, b0.7 199-218° (m. 18-22°), -. The separation of all 4 possible geometrical isomers of Ia and of Ib was carried out successfully by chromatog. and by distillation on a Podbielniak column. Thin layer chromatog. on silica gel, elution with 40:7:4 ligroine-Me3COH-EtOAc, and development with iodine, phosphomolybdic acid, and (or) SbCl5 showed the presence of 2 isomers (II, III) as major product when the acetals were prepared under kinetic control, whereas the isomers (IV, V) predominated when the synthesis was under thermodynamic control. The 4 acetals were separated both by gas chromatog. and column chromatog. on silica gel. The separation was effected by distillation and gave a series of isomers I-IV from each of the glycerol acetals. Determination of the ring structure by the method of Hill, Whelen, and Hibbert (CA 22: 3132) showed that IV and V were dioxanes and II and III had dioxolane structure. The determination of the stereochemistry of the 4 isomers of Ia was carried out by ir and N.M.R. spectral analysis.

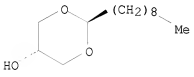
IT 18445-26-6P 18445-27-7P
    RL: SPN (Synthetic preparation); PREP (Preparation)
    (preparation of)
RN 18445-26-6 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, cis- (CA INDEX NAME)

Relative stereochemistry.



RN 18445-27-7 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, trans- (CA INDEX NAME)

Relative stereochemistry.



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L6   QUE L5 AND L4
L7   31 S L6 SSS FULL

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L9   18 S L8 AND PY<=2004

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L10          17 S L8 AND PY<=2003

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          1521 PENETRATIONS
        115383 PENETRATION
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           174 PERMEATIONS
         92729 PERMEATION
                 (PERMEATION OR PERMEATIONS)
L14          0 L13 AND (PENETRATION OR PERMEATION)
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         18850 ENHANCERS
         72712 ENHANCER
                 (ENHANCER OR ENHANCERS)
L16          0 L15 AND ENHANCER

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              its structure diagram
HITSEQ ------ HIT RN, its text modification, its CA index name, its
              structure diagram, plus NTE and SEQ fields
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FHITSEQ ----- First HIT RN, its text modification, its CA index name, its
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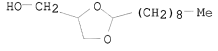
L12 ANSWER 30 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1965:29375 CAPLUS
DOCUMENT NUMBER: 62:29375
ORIGINAL REFERENCE NO.: 62:5180h,5181a-c
TITLE: Plasmalogens. II. Formation of cyclic acetals from alkenyl glycerol ethers
AUTHOR(S): Piantadosi, Claude; Frosolono, Michael F.; Anderson, Carl E.; Hirsch, Allen F.
CORPORATE SOURCE: Univ. of North Carolina, Chapel Hill
SOURCE: Journal of Pharmaceutical Sciences (1964), 53(9), 1024-6
CODEN: JPMSAE; ISSN: 0022-3549
DOCUMENT TYPE: Journal
LANGUAGE: English
AB cf. CA 59, 11230g. The conditions necessary for the cyclization of 3-(1-alkenyloxy)-1,2-propanediols, RCH:CHOCH2CH(OH)CH2OH, (I) (loc. cit.) to the corresponding cyclic glycerol acetals (II) were investigated. I (R = hexyl) (III) (b0.02 120°, n20D 1.4657) (5 ml.) in 10 ml. 1:1 CHCl3-iso-BuOH (solvent A) heated and stirred 1 hr. with 10 ml. 10% aqueous CCl3CO2H (IV), the mixture kept .apprx. 17 hrs. at room temperature (25°) and neutralized with N NaOH, and the product isolated with Et2O gave II (R = hexyl) (V), b0.01 80°, n20D 1.4514, its structure being supported by its ir spectrum; from IV was obtained an aldehyde (octanal), whose 2,4-dinitrophenylhydrazone (DNP), m. 106°. The tabulated expts. were also carried out with III and with I (R = octyl) (VI) (b0.05 130°, n20D 1.4667) and I (R = decyl) (VII) (b0.05 165°, n20D 1.4684). I used, acid used, solvent, temperature, time (hr.), product, b.p./mm., nD/temperature; III, AcOH, none, 65°, 0.5, V, 80°/0.01, 1.4514/20°; III, 10% aqueous IV, A, 37°, 1.0 (1), V, 80°/0.01, 1.4514/20°; III, AcOH, none, 60°, 1.0 (1), V, 80°/0.01, 1.4514/20°; VI, 10% aqueous IV, A, 37°, 1.0, II (R-decyl) (VIII), 95°/0.02, 1.4526/25.6°; VI, 10% aqueous IV (2) plus 1.40 g. HgCl2, A, 37°, 1.0, VIII 95°/0.02, 1.4538/25.5°; VI, 90% AcOH, A, 37°, 1.0, VIII, 95°/0.02, 1.4540/25.0°; VI, AcOH, none, 37°, 1.0, VIII, 95°/0.02, 1.4539/25.6°; VI, AcOH, none, 50°, 1.0, VIII, 95°/0.02, 1.4541/25.0°; VI, AcOH, none, 37°, 0.5, VIII, 95°/0.02, 1.4538/25.5°; VII, AcOH, none, 60°, 1.0, II (R-decyl) (IX), 135°/0.25, 1.4570/20.0°; (1) compound isolated immediately after 1 hr.; (2) plus 1.40 g. HgCl2; The DNP's of the aldehydes (decanal and do-decanal) obtained from VIII and IX m. 104° and 106°, resp. The synthetic II used as reference compds. were prepared according to P., et al. (CA 53, 12168e): V b0.01 80°, n20D 1.4531; VIII b0.02 95°, n20D 1.4560; IX b0.24 134°, n23D 1.4570. The ir spectra of III, VI, VII, V, VIII, and IX and synthetic V, VIII, and IX were recorded. The results support the conclusions reached by Davenport and Dawson (CA 57,

17043a) in their work with ethanolamine lysoplasmalogen (X), namely, that the cyclic acetal XI is an artifact formed by acid hydrolysis of X.

IT 1020-81-1P, 1,3-Dioxolane-4-methanol, 2-nonyl-
RL: PREP (Preparation)
(preparation of)

RN 1020-81-1 CAPLUS

CN 1,3-Dioxolane-4-methanol, 2-nonyl- (CA INDEX NAME)



L12 ANSWER 31 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1963:461431 CAPLUS

DOCUMENT NUMBER: 59:61431

ORIGINAL REFERENCE NO.: 59:11230g-h,11231a-c

TITLE: Plasmalogens. I. Synthesis of 1-alkenyl ethers of glycerol

AUTHOR(S): Piantadosi, Claude; Hirsch, Allen F.; Yarbro, Clause L.; Anderson, Carl E.

CORPORATE SOURCE: Univ. of North Carolina, Chapel Hill

SOURCE: Journal of Organic Chemistry (1963), 28(9), 2425-8
CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

OTHER SOURCE(S): CASREACT 59:61431

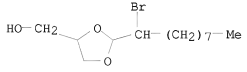
AB 2-Substituted-4-hydroxymethyl-1,3-dioxolanes (I) were prepared by the procedure of Piantadosi, et al. (CA 53, 12168e) [2-substituent, b.p. (mm.), n1D (temperature), and % yield given]: EtCHBr, 105-7° (0.4), 1.4939(24°), 47, PrCHBr, 106-9° (0.6), 1.4849 (24°), 80; BuCHBr, 125 30°, (1.2), 1.4755(34°) 68; AmCHBr, 129-33°(1), 1.4798(31°), 79; C6H13CHBr, 138-42°(0.8), 1.4811(33°), 74; C7H15CHBr, 152-55° (1), 1.4789(28°), 76; C8H17,CHBr, 155-60° (0.4), 1.4810(22°), 73; C9H19CHBr, 156-7° (0.3), 1.4790(32°), 72; and the same procedure with HO(CH2)3OH and AmCHBrCH(OMe)2 gave 82% 2-(1-bromohexyl)-1,3-dioxane (II), b1 97-100°, n25D 1.4750. To 65.9 g. I in 400 mL. anhydrous Et2O under N was added 16.5 g. Na in small pieces, the whole stirred 2.5 days, filtered from No, min. H2O added to dissolve NaBr, and the Et2O layer separated to give 54% 3-(1-hexenyloxy)-1,2-propanediol, b0.5 108-9°, n31D 1.4648. Similarly were prepared the following 3-(1-alkenyl)-1,2-propanediols (these with 2,4-(O2N)2C6H3NHNH2 under acidic conditions gave the 2,4-dinitrophenylhydrazones of the 1-alkenecarbonyl derivs.) (1-alkenyl group, b.p. (mm.), ntD (temperature), % yield, and m.p. 2,4-dinitrophenylhydrazone given): C4H7, 101-2° (0.5), ;1.4691(22°), 57, 123°; C5H9, 97-100° (0.5), 1.4674 (26°), 46, 97°; C6H11, 88-90° (0.08); 1.4674 (23°), 40, 103°; C8H15 (III), 135-8° (1), 1.4670 (27°), 51, 95-6°; C9H17, 122-3°(0.2),1.4660(26), 76, 93-4°; C10H19, 128-31° (0.2), 1.4648(24), 68, 104°; C11H21 156° (0.2), 1.4687(24), -, 103; and the same procedure with II gave AmCH:CHO(CH2)3OH (IV), b3 106-8°, n30D 1.4502. III (40 g.), 150 mL. absolute EtOH, 1 g. PtO2, and H in a Parr apparatus gave 33 g. the 3-(1-octyl) derivative (V), b0.9 135-6°, n25D 1.4503. Similarly were prepared 3-(1-alkyl) derivs. (data given as in first series) (no % yield): Bu, 67-9°(0.06), 1.4467(22°); Am, 106° (1), 1.4445(24°); C6H13, 97-8° (0.3), 1.4511(21°); C7H15,

97-8° (0.1), 1.4518(23°); C9H19, 145-8°(1), 1.4542(24°); C10H21, 120°(0.1), 1.4550(26°); C11H23, 164-7°(0.9), 1.4550(21°); similarly, IV gave C7H15O(CH2)3OH, b0.8 75-5.5°, n25D 1.4383. The 1-alkenyl ethers of the 2,3-propanediols absorbed at 10.7 μ, indicating that the compds. had the trans configuration. The reaction of the Na salt of isopropylideneglycerol with C8H17Br, followed by acid hydrolysis, gave a product, b0.7 130°, n28D 1.4490, identical with V.

IT 92156-27-9P, 1,3-Dioxolane-4-methanol, 2-(1-bromononyl)-
RL: PREP (Preparation)
(preparation of)

RN 92156-27-9 CAPLUS

CN 1,3-Dioxolane-4-methanol, 2-(1-bromononyl)- (CA INDEX NAME)



L12 ANSWER 32 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1963:40070 CAPLUS
DOCUMENT NUMBER: 58:40070
ORIGINAL REFERENCE NO.: 58:6841c-e
TITLE: 2-Methyl-2-nonyl-4-hydroxymethyl-1,3-dioxolane and carbamates thereof
INVENTOR(S): Avakian, Souren; Martin, Gustav J.
PATENT ASSIGNEE(S): Richardson-Merrell Inc.
SOURCE: 2 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3058981		19621016	US 1958-773824	19581114 <--

PRIORITY APPLN. INFO.: US 19581114

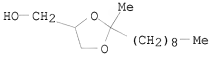
AB A mixture of one mole methyl nonyl ketone, one mole glycerol, and 2 g. p-toluenesulfonic acid in 300 ml. toluene was refluxed with stirring until about 18 ml. H2O was collected. The mixture was cooled, washed with H2O, dried over anhydrous Na2CO3, filtered, and distilled under reduced pressure to give 2-methyl-2-nonyl-4-hydroxymethyl-1,3-dioxolane (I), b0.2 130-2°. To a solution of 109 g. COCl2 in anhydrous C6H6 was added dropwise, with vigorous stirring at 0-5°, 368 g. I in anhydrous ether, the mixture stirred an addnl. 0.5 hr., 133 g. PhNMe2 added, the mixture stirred, cooled 45 min., and filtered, the filter cake washed with anhydrous ether, the washings combined with the original solution and added with vigorous stirring at 0-5° to 50 ml. aqueous ammonia, stirring and cooling continued 2 hrs., and the organic layer separated, washed with H2O, dried over anhydrous Na2SO4, and concentrated under reduced pressure. The residue was mixed with petr. ether and filtered to give two racemates which melt at 61-6°. It was recrystd. from C6H6 to give the high melting (79-80°) and low melting (63-4°) racemates. Similarly prepared were the following compds.: 2-methyl-2-nonyl-4-(morpholinocarbonyloxymethyl)-1,3-dioxolane, b0.03

159-60°; 2-methyl-2-nonyl-4-(piperidinocarbonyloxymethyl)-1,3-dioxolane, b0.10 165°; N-allylcarbamate of 2-methyl-2-nonyl-4-hydroxymethyl-1,3-dioxolane, b0.2 158°; 2-methyl-2-nonyl-4-(2,2-dimethylhydrazinocarbonyloxymethyl)-1,3-dioxolane hydrochloride, m. 123-5°, and N-(dimethylaminopropyl)carbamate of 2-methyl-2-nonyl-4-hydroxymethyl-1,3-dioxolane hydrochloride.

IT 6542-98-9, 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl- (esters)

RN 6542-98-9 CAPLUS

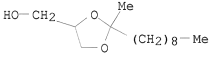
CN 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl- (CA INDEX NAME)



IT 6542-98-9P, 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl-
RL: PREP (Preparation)
(preparation of)

RN 6542-98-9 CAPLUS

CN 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl- (CA INDEX NAME)



L12 ANSWER 33 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1963:40069 CAPLUS

DOCUMENT NUMBER: 58:40069

ORIGINAL REFERENCE NO.: 58:6840c-h,6841a-c

TITLE: Central stimulant and appetite depressant oxazines

INVENTOR(S): Siemer, Harm; Hengen, Otto

PATENT ASSIGNEE(S): Ravensberg G.m.b.H.; Chemische Fabrik

SOURCE: 10 pp.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3018222		19620123	US 1956-606547	19560828 <--

PRIORITY APPLN. INFO.: US 19560828

AB The compds. are esters of formula I. Thus, to a boiling solution of 1105 g. 2-phenyl-3-methyl-4-(β-hydroxyethyl)morpholine in 4000 ml. anhydrous PhMe was added slowly a solution of 910 g. α-phenyl-α-ethylacetyl chloride in 400 ml. PhMe. The mixture was heated to boiling 5 hrs., cooled, 1000 g. ice was added, the mixture made alkaline with 20% Na2CO3 to pH of 9.0, stirred vigorously 1 hr., PhMe layer separated, washed with 1 l. saturated NaCl solution, dried, concentrated, the residue distilled to give 1650 g. I (R = Et, R1 = Ph, R2 = Me), b0.05 235-40°; hydrochloride m. 148-50°. N-Benzyl-2-phenyl-2-hydroxyisopropylamine (24.1 g.) and 9.4 g. ClCH2CO2H were dissolved in 50 ml. C6H6, 6.9 g. K2CO3 was added, the mixture heated to boiling, the H2O of reaction distilled azeotropically, and the mixture cooled,

filtered, concentrated, and distilled in vacuo to give 4-benzyl-3-methyl-2-phenylmorpholin-6-one (II). II (14 g.) was reduced in 50 ml. anhydrous Et2O with 0.5 g. LiAlH4 to give III. III (14.1 g.) was dissolved in 75 ml. absolute Et2O, the solution added dropwise to SOCl2 at 0-10°, the mixture stirred 2 hrs. at room temperature, refluxed 1 hr., cooled, filtered, and washed repeatedly with Et2O to give N-benzyl-2-phenyl-3-methyl-6-chloromorpholine-HCl (IV). IV (33.8 g.) was treated with 2 g. LiAlH4 in 20 ml. absolute Et2O to give N-benzyl-2-phenyl-3-methylmorpholine (V), b0.6 154-6°. V (26 g.) was dissolved in 260 ml. MeOH and the solution hydrogenated in the presence of Pd-C (4%) at room temperature to give 2-phenyl-3-methylmorpholine (VI), b1.0 104°, also prepared by hydrogenating N-benzyl-2-phenyl-3-methyl-6-chloromorpholine HCl (VII) in MeOH in the presence of Pd-C; hydrochloride m. 181°. 1-Phenyl-2-propyn-1-ol (500 g.) dissolved in 500 ml. MeOH was added with stirring to a solution of 100 ml. BF3-MeOH (containing 50% by weight of BF3) and 5 g. HgO in 1250 ml. MeOH.

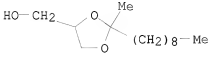
The mixture was stirred 2 hrs. and 1-phenyl-2,2-dimethoxypropanol was obtained in 90% yield. It was heated in dilute aqueous methanolic HCl solution, neutralized, filtered, extracted with 500 ml. Et2O, and evaporated to yield 504 g.

(87%) 1-phenyl-2-oxopropanol (VIII). VIII was dissolved in 1000 ml. MeOH, hydrogenated at 80° under pressure of 100 atmospheric gage in the presence of 100 g. MeNH2 and Raney Ni, filtered, 165 g. ethylene oxide passed into the MeOH solution of the resulting 1-phenyl-2-methylaminopropanol, the solution refluxed for 1 hr., concentrated, and Et2O was added to cause crystallization of 1-phenyl-2-[methyl(β-hydroxyethyl)amino]propanol (IX). IX (453 g.) was added to 453 ml. concentrated H2SO4, the mixture heated to 100° 7 hrs. with stirring, cooled, made alkaline with 35% NaOH solution to a pH of 12.0, extracted with Et2O, dried over NaOH, and filtered, and the filtrate concentrated and distilled to give 2-phenyl-3,4-dimethylmorpholine, b2 118°.

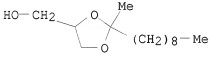
Similarly, 2-phenyl-3-methylmorpholine (X), b2 108°, was obtained.

A solution of 88.5 g. X in 45 ml. PhMe was added dropwise with stirring to a suspension of 20 g. NaNH2 in 250 ml. PhMe, the mixture refluxed 1 hr., cooled, a solution of EtBr in 110 ml. PhMe was added, the mixture heated in an autoclave to a temperature of 150° 5 hrs. while shaking, cooled, filtered, concentrated, and distilled to give 102 g. 2-phenyl-3-methyl-4-ethylmorpholine, b4 132°. Similarly, 2-phenyl-3-methyl-1-oxa-4-azacycloheptane, b0.1 109-11° (hydrochloride m. 154°), and 2-phenyl-3-methyl-1-oxa-4-azacyclooctane were obtained. Optically active compds. were produced as follows: 54 g. d-1-phenyl-2-[methyl(β-hydroxyethyl)amino]propanol, [α]18D 12° (MeOH) was added with stirring to 54 ml. concentrated H2SO4, (d. 1.840), the mixture heated to 90° 5 hrs., poured on ice, made alkaline with 30% NaOH solution, extracted with Et2O, washed with saturated NaCl solution, dried, evaporated, and distilled to give l-2-phenyl-3,4-dimethylmorpholine, b0.5 91-2°, [α]18D -30.8° (MeOH); hydrochloride, [α]18D -36.2° (MeOH). Similarly, l-1-phenyl-2-[methyl(β-hydroxyethyl)amino]propanol, [α]18D -11.5° (MeOH), and d-2-phenyl-3-methylmorpholine, [α]18D 38.4° (MeOH), were prepared VI (88.5 g.) and 107.5 g. 8-chlorotheophylline (XI) were triturated to give the XI salt of VI, m. 128°; a 10% aqueous solution had a pH of 7.1. The XI salt of d-2-phenyl-3-methylmorpholine, [α]18D 9.9°, was prepared Similarly, the XI salt of 2-(2-chlorophenyl)-3-methylmorpholine, and the theophylline salts of 2-(4-hydroxyphenyl)-3-methylmorpholine, and

2-phenyl-3-methyl-4-(β-hydroxyethyl)morpholine were prepared
IT 6542-98-9, 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl-, (esters)
RN 6542-98-9 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl- (CA INDEX NAME)



L12 ANSWER 34 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1962:76516 CAPLUS
DOCUMENT NUMBER: 56:76516
ORIGINAL REFERENCE NO.: 56:14888g-i
TITLE: Antagonism of tremorine by benactyzine and dioxolan analogs
AUTHOR(S): McColl, J. D.; Rice, W. B.
CORPORATE SOURCE: Frank W. Horner Ltd., Montreal, Can.
SOURCE: Toxicology and Applied Pharmacology (1962), 4, 263-8
CODEN: TXAPA9; ISSN: 0041-008X
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Benactyzine, trihexyphenidyl, and chlorpromazine were the most effective of 10 compds. tested for antitremorine activity in mice. Significant but lesser effects were observed with diethazine, promoxolane and dioxamate (the carbamate of 2-nonyl-2-methyl-4-hydroxymethyldioxolane). Meprobamate and chlorphenoxamine showed no significant activity at the dose levels tested. The antitremorine effect was potentiated when benactyzine was given in combination with nonylmethyldioxolane, dioxamate, promoxolane, or promoxolane carbamate.
IT 6542-98-9, 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl-, (tremorine antagonism to)
RN 6542-98-9 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl- (CA INDEX NAME)



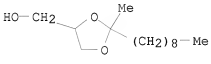
L12 ANSWER 35 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1961:44588 CAPLUS
DOCUMENT NUMBER: 55:44588
ORIGINAL REFERENCE NO.: 55:8652a-c
TITLE: Antagonism of psychomimetic agents in the conscious cat
AUTHOR(S): Rice, W. B.; McColl, J. D.
CORPORATE SOURCE: Frank W. Horner Ltd., Montreal, Can.
SOURCE: Archives Internationales de Pharmacodynamie et de Therapie (1960), 127, 249-59
CODEN: AIPTAK; ISSN: 0003-9780
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The injection of mescaline (I) 1 mg./kg., N,N-Diethyllysergamide (II) 50 γ/kg., or adrenochrome (III) 0.6 mg./kg. into the lateral cerebral ventricle of the conscious cat induced the following effects (in decreasing order of incidence): sympathetic: mydriasis, I, III, II; rage, I, III; panting, I, III; tachypnea, I, III, II; parasympathetic: salivation, I, II, III; retching, I; emesis, I; micturition, I, III; defecation, I; somatomotor: convulsions, III, I; tremors, III, I, II; ataxia, I, III; paw elevation, I, II, III; circling, I; facial twitch, I, III; catatonia, none; behavioral: yowling, I; habit change, I, III; hostility, II. The systemic administration of benactyzine, chlorpromazine reserpine, methylnonyldioxolane, chlorphenoxamine, and meprobamate were found to antagonize various components of the mescaline-induced effects. The simultaneous administration of methylnonyl dioxolane with benactyzine or chlorphenoxamine demonstrated an enhancement of antagonism against mescaline. Scopolamine, atropine, and phenobarbital had very little affect on the mescaline response.

IT 6542-98-9, 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl-
(antagonism to psychotomimetic agents)

RN 6542-98-9 CAPLUS

CN 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl- (CA INDEX NAME)



L12 ANSWER 36 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1959:82984 CAPLUS

DOCUMENT NUMBER: 53:82984

ORIGINAL REFERENCE NO.: 53:14927b-c

TITLE: Decomposition of diazo ketones with cupric oxide. VI. Preparation of unsaturated dioxo esters

AUTHOR(S): Ernest, Ivan; Linhartova, Zdenka

CORPORATE SOURCE: Vysoka skola chem. technol., Prague

SOURCE: Collection of Czechoslovak Chemical Communications (1959), 24, 1022-4
CODEN: CCCCAK; ISSN: 0010-0765

DOCUMENT TYPE: Journal

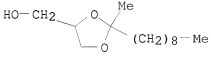
LANGUAGE: German

AB See C.A. 52, 11806f.

IT 6542-98-9, 2-Undecanone, cyclic (hydroxymethyl)ethylene acetal
(and derivs., phys. constants of)

RN 6542-98-9 CAPLUS

CN 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl- (CA INDEX NAME)



L12 ANSWER 37 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

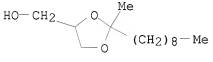
ACCESSION NUMBER: 1959:82983 CAPLUS

DOCUMENT NUMBER: 53:82983

ORIGINAL REFERENCE NO.: 53:14926i,14927a-b

TITLE: Methyl n-alkyl ketones and their derivatives: a

critical table
AUTHOR(S): Shenton, T.; Smith, J. C.
CORPORATE SOURCE: Univ. Oxford, UK
SOURCE: Chemistry & Industry (London, United Kingdom) (1958) 1510
CODEN: CHINAG; ISSN: 0009-3068
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB The following data are tabulated for MeCOR (R, m.p., b.p., n20D, m.ps. of semicarbazone, thiosemicarbazone, p-nitrophenylhydrazone, and 2,4-dinitrophenylhydrazone, resp., given): Me, -95°, 56.5°, 1.3590, 188-90°, 179°, 149°, 126-8°; Et, -86°, 79.6°, 1.3790, 146°, 102°, 128-9°, 116-17°; n-Pr, -78°, 102°, 1.3904, 111°, 74°, 113-14°, 143-4°; Bu, -56°, 128°, 1.4007, 125°, 53°, 88°, 108°; Am, -35°, 151°, 1.4088, 125.5°, 77.5°, 72-3°, 73-4.5°; hexyl, -21°, 173°, 1.4155, 123°, 68°, 92°, 59.5°; heptyl, -7.5°, 195°, 1.4211, 120°, 87°, 83-4°, 58-9°; octyl, 2.5°, 90.5°/10 mm., 1.4254, 125-6°, 78-9°, 96-7°, 74°; nonyl, 12.8°, 108°/9 mm., 1.4290, 123-4°, 93°, 90°, 64-5°; decyl, 20.5°, 120°/12 mm., 1.4327, 125°, 86-7°, 101°, 81.5°; undecyl, 28°, 134°/10 mm., 1.4355, 124.5°, 96-7.5°, 95°, 72°.
IT 6542-98-9, 2-Undecanone, cyclic (hydroxymethyl)ethylene acetal (and derivs., phys. constants of)
RN 6542-98-9 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl- (CA INDEX NAME)



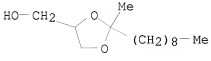
L12 ANSWER 38 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1958:103137 CAPLUS
DOCUMENT NUMBER: 52:103137
ORIGINAL REFERENCE NO.: 52:18093b-d
TITLE: Qualitative and quantitative determination of aliphatic carbonyl compounds as 2,4-dinitrophenylhydrazones
AUTHOR(S): Monty, Kenneth J.
CORPORATE SOURCE: Johns Hopkins Univ., Baltimore, MD
SOURCE: Anal. Chem. (1958), 30, 1350-2
CODEN: ANCHAM; ISSN: 0003-2700
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Aliphatic saturated carbonyl compds. with chain lengths up to about 14 C atoms are identified and determined in micromolar amts. by combined use of partition chromatography and spectrophotometry. The 2,4-dinitrophenylhydrazone derivs. of the carbonyl compds. in a mixture are prepared by the method of Shriner and Fuson (Shriner, et al., Systematic Identification of Organic Compds. 1956 (C.A. 50, 3162e)). The derivs. are fractionated on the basis of the molecular wts. of the parent carbonyl compds. by a modification of the method of Kramer and Van Duin (C.A. 48, 6321i). The chromatographic procedure involves partition between nitromethane and petr. ether on a

kieselguhr column. The aldehyde and ketone in each fraction is determined by measurement of the absorbance of each carbonyl derivative at 425 and 530 mμ. The molar extinction coeffs. at these wave lengths are given for the 2,4-dinitrophenylhydrazones of AcH, EtCHO, PrCHO, heptaldehyde, octyl aldehyde, decyl aldehyde, dodecyl aldehyde, tetradecyl aldehyde, MeCOEt, MeCOBu, Me hexyl ketone, Me nonyl ketone, Et2CO, Pr2CO, Bu2CO, and iso-PrCOMe. The method was used in the analysis of animal fats and bacterial systems.

IT 6542-98-9, 2-Undecanone, cyclic (hydroxymethyl)ethylene acetal (determination of)

RN 6542-98-9 CAPLUS

CN 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl- (CA INDEX NAME)



L12 ANSWER 39 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1959:38732 CAPLUS

DOCUMENT NUMBER: 53:38732

ORIGINAL REFERENCE NO.: 53:6869h-i,6870a-b

TITLE: Simple spot test for methyl ketones

AUTHOR(S): Stanley, Thomas W.

CORPORATE SOURCE: Robert A. Taft Sanit. Eng. Center, Cincinnati, O.

SOURCE: Chemist-Analyst (1958), 47, 91
CODEN: CHANAA; ISSN: 0095-8484

DOCUMENT TYPE: Journal

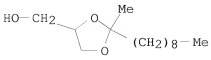
LANGUAGE: Unavailable

AB A sensitive spot test for Me ketones which is applicable to water-insol. compds. is described. To 50 mg. of freshly prepared powdered reagent (Na nitroferricyanide, NH4OAc, Na2CO3, 3:50:50, ground together) add 0.1 ml. MeOH solution of the test compound and allow to stand for 10-30 min. Pos. reaction is the development of blue to purple to green colors. Colors obtained, wave length maximum, and detection limits are given for acetone, 2-butanone, 4-hydroxybutanone, 2-pentanone, 2-heptanone, 2-octanone, 2-nonanone, 2-undecanone, 2-tridecanone, 2-hexadecanone, 2-nonadecanone, acetophenone, 4-(p-methoxyphenyl)-3-butene-2-one, α-acetonaphthone, β-acetonaphthone, phenylacetone, 2-acetyldibenzothiophene, and nitromethane. Detection limits are of the order of 1-25 γ. Aliphatic mercaptans and thiophenol gave dark-red colors. Some thio compds., such as 2-aminobenzenethiol, gave instantaneous blue to green colors which decomposed to dark browns. Neg. results were obtained with 3-pentanone, 3-heptanone, cylcobutanone, cyclopentanone, cyclohexanone, benzophenone, benzoylacetone, N-methyl-2-pyrrolidinone, 2-pyrrolidinone, resorcinol, phlorglucinol, 1,1,-dimethyl-3,5-cyclohexanedione, and Et acteoacetate.

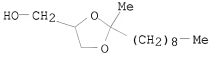
IT 6542-98-9, 2-Undecanone, cyclic (hydroxymethyl)ethylene acetal (detection of)

RN 6542-98-9 CAPLUS

CN 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl- (CA INDEX NAME)

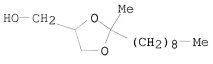


L12 ANSWER 40 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1958:103138 CAPLUS
DOCUMENT NUMBER: 52:103138
ORIGINAL REFERENCE NO.: 52:18093d-e
TITLE: Cryoscopic determination of nonsulfonatable admixture in arenes (aromatic hydrocarbons)
AUTHOR(S): Tilicheev, M. D.; Goisa, E. I.
SOURCE: Zhurnal Analiticheskoi Khimii (1957), 12, 573-8
CODEN: ZAKHA8; ISSN: 0044-4502
DOCUMENT TYPE: Journal
LANGUAGE: English
AB See C.A. 52, 1862c.
IT 6542-98-9, 2-Undecanone, cyclic (hydroxymethyl)ethylene acetal (determination of)
RN 6542-98-9 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl- (CA INDEX NAME)



L12 ANSWER 41 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1957:970 CAPLUS
DOCUMENT NUMBER: 51:970
ORIGINAL REFERENCE NO.: 51:137c-e
TITLE: Paper chromatographic analysis of aldehydes and ketones. I. Detection and separation of aldehydes and ketones on paper
AUTHOR(S): Schulte, K. E.; Storp, C. B.
SOURCE: Fette, Seifen, Anstrichmittel (1955), 57, 36-42
CODEN: FSASAX; ISSN: 0015-038X
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Color reactions of aldehydes and ketones and their sensitivity on paper are described in detail. Aldehydes studied were the straight-chain aldehydes from C8 to C14, undecylenyl aldehyde, methylnonylacetaldehyde, furfural, vanillin, ethylvanillin, heliotropin, citral, citronellal (limonene-type), citronellal (terpineol-type), hydroxycitronellal, PhCHO, p-iso-PrC6H4CHO, PhCH2CHO, p-MeC6H4CH2CHO, PhCHMeCHO, cinnamaldehyde, α-amylcinnamaldehyde, methylisopropylhydrocinnamaldehyde, PhCH2CH2CHO, and anisaldehyde. Color reagents used with the aldehydes were Schiff's reagent, benzidine solution, Nessler reagent, and triphenyltetrazolium chloride solution Ketones studied were civetone, muscone, menthone, camphor, acetophenone, methylacetophenone, methylheptenone, methyl nonyl ketone, α-irone, β-irone, α-ionone, β-ionone, α-methylionone, βmethylionone, γ-methylionone, and δ-methylionone. Color reagent used for the ketones was 2,4-dinitrophenylhydrazine solution Rf values are listed for the free aldehydes and ketones as well as for p-nitrophenylhydrazones of some of the aldehydes. Diagrams illustrating paper-chromatographic sepns. of some of these compds. are given.
IT 6542-98-9, 2-Undecanone, cyclic (hydroxymethyl)ethylene acetal (detection of, and its (2,4-dinitrophenyl)hydrazone)
RN 6542-98-9 CAPLUS

CN 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl- (CA INDEX NAME)



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     (FILE 'HOME' ENTERED AT 07:57:11 ON 14 OCT 2008)

     FILE 'REGISTRY' ENTERED AT 07:57:22 ON 14 OCT 2008
L1   STRUCTURE UPLOADED
L2   QUE L1
L3   13 S L2 SSS FULL
L4   SCREEN 963
L5   STRUCTURE UPLOADED
L6   QUE L5 AND L4
L7   31 S L6 SSS FULL

     FILE 'CAPLUS' ENTERED AT 07:58:46 ON 14 OCT 2008
L8   18 S L3
L9   18 S L8 AND PY<=2004
L10   17 S L8 AND PY<=2003

     FILE 'STNGUIDE' ENTERED AT 08:01:50 ON 14 OCT 2008

     FILE 'CAPLUS' ENTERED AT 08:13:07 ON 14 OCT 2008
L11   41 S L7 AND PY<=2003
L12   41 DUP REM L11 (0 DUPLICATES REMOVED)
L13   41 S L12
L14   0 S L12 AND (PENETRATION OR PERMEATION)
L15   41 S L12
L16   0 S L12 AND ENHANCER

=> d l11 1-29 ibib ab hitstr

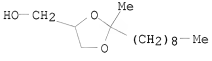
L11 ANSWER 1 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:268288 CAPLUS
DOCUMENT NUMBER: 139:262485
TITLE: Synthesis and properties of new acetal-type chemically
                          degradable surfactants
AUTHOR(S):   Yamamura, Shingo; Okamoto, Fumitaka; Muraoka,
                          Junzaburo; Sunada, Tsutomu; Kakehashi, Rie; Shizuma,
                          Motohiro; Morita, Mitsuyuki; Takeda, Tokuji
CORPORATE SOURCE: Osaka Municipal Technical Research Institute, Joto-ku,
                          Osaka, 536-8553, Japan
SOURCE: Kagaku to Kogyo (Osaka, Japan) (2003),
                          77(3), 150-155
                          CODEN: KKGOAG; ISSN: 0368-5918
PUBLISHER: Osaka Koken Kyokai
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
AB A convenient and useful method for the synthesis of chemical degradable
    anionic surfactants containing a 1,3-dioxolane ring with several aliphatic
alkyl

groups is described. The synthetic method is economical procedure and all materials for the preparation of these surfactants are com. available. They showed good surface activity, hydrolysis under acidic condition, and detergency.

IT 6542-98-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis for synthesis of new acetal-type chemical degradable surfactants)

RN 6542-98-9 CAPLUS

CN 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl- (CA INDEX NAME)



L11 ANSWER 2 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:87623 CAPLUS

DOCUMENT NUMBER: 136:315441

TITLE: Critical micelle concentrations of different classes of surfactants: a quantitative structure property relationship study

AUTHOR(S): Anoune, Naoual; Nouiri, Moustapha; Berrah, Yacine; Gauvrit, Jean-Yves; Lanteri, Pierre

CORPORATE SOURCE: Laboratoire de Chimiometrie-ERT 11, Universite Claude Bernard and CPE-Lyon, Villeurbanne, 69622, Fr.

SOURCE: Journal of Surfactants and Detergents (2002), 5(1), 45-53
CODEN: JSDEFL; ISSN: 1097-3958

PUBLISHER: AOCS Press

DOCUMENT TYPE: Journal

LANGUAGE: English

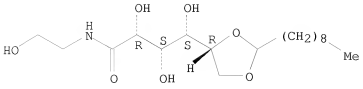
AB The critical micelle concentration (CMC) values of a 49-surfactant dataset, among them 30 derived from α-hydroxy acids or from gluconolactone synthesized and characterized in the authors' laboratory, were subjected to Quant. Structure Property Relationship (QSPR) studies. A principal component anal. (PCA) was used to compare the behavior of the synthesized surfactants to com. ones that were used as detergents. The PCA shows the importance of the mol. structure of a surfactant in determining its activity (application field). Gluconolactone derivs. exhibited the same activity as those observed for glucopyranoside derivs. A partial least squares regression was used to build a model that describes the CMC of diverse surfactants as a function of mol. descriptors.

IT 409335-44-0
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(critical micelle concns. of different classes of surfactants: a quant. structure property relationship study)

RN 409335-44-0 CAPLUS

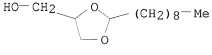
CN D-Gluconamide, 5,6-O-decylidene-N-(2-hydroxyethyl)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 3 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:835474 CAPLUS
DOCUMENT NUMBER: 134:297503
TITLE: Preparation of degradable sulfonate surfactants
AUTHOR(S): Zhu, Hong-jun; Wang, Jin-tang; Xu, Feng; Kong, Ai-wu
CORPORATE SOURCE: Department of Allied Chemistry, Nanjing University of Chemical Technology, Nanjing, 210009, Peop. Rep. China
SOURCE: Jingxi Huagong (2000), 17(10), 559-561, 566
CODEN: JIHUFJ; ISSN: 1003-5214
PUBLISHER: Jingxi Huagong Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB A series of degradable sulfonate surfactants(III) {sodium 3-[(2-heptyl-1,3-dioxolan-4-yl) methoxy]-1-propanesulfonate; sodium 3-[(2-nonyl-1,3-dioxolan-4-yl) methoxy]-1-propanesulfonate; sodium 3-[(undecyl-1,3-dioxolan-4-yl) methoxy]-1-propanesulfonate} with 1,3-dioxolane ring were prepared by three steps. (a) a series of acetals (I) were prepared by reaction of aldehydes and tri-Et orthoformate at 8-10° under the catalysis of ammonium nitrate (50% yield), (b) the cyclic glycerol acetals(II) were prepared by transacetalation of I with glycerol at 110° (80% yield), (c) then the intermediates II reacted with inner ester of 3-hydroxypropanesulfonic acid and sodium hydroxide at 60-65° for 8 h to give III (90% yield). The structure identification was performed using elementary anal., IR and 1HNMR.
IT 1020-81-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(in preparation of degradable sulfonate surfactants)
RN 1020-81-1 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-nonyl- (CA INDEX NAME)



L11 ANSWER 4 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:774192 CAPLUS
DOCUMENT NUMBER: 132:13333
TITLE: Dioxolanes as (intermediates for) surfactants, their preparation, and acid decomposition
INVENTOR(S): Nakamura, Masaki; Nomura, Hiroshi; Miyamoto, Masanori; Hasegawa, Akira
PATENT ASSIGNEE(S): Osaka City, Japan; Teshima Kaken K. K.
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11335371	A	19991207	JP 1998-138241	19980520 <--
JP 3049390	B2	20000605		

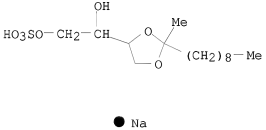
PRIORITY APPLN. INFO.: JP 1998-138241 19980520

AB Dioxolanes I [R1 = Ra(ORb)y; Ra = C6-22 alkyl, alkenyl, alkynyl, (substituted) aryl; Rb = C2-4 alkylene; y = 0-20; R2 = Me, Et; n = 0, 1; A1, A2 = OH, OSO3M; M = H, alkali metal, alkaline earth metal, ammonium, C2-3 alkanolammonium, C1-5 alkylammonium, basic amino acid residue], which are decomposed into ketones, glycerin, erythritol, etc. by treatment with acids, are prepared by sulfation of I (n = 0, 1; A1 = A2 = OH). Thus, 2-undecanone was condensed with glycerin and sulfated to give I (R1 = nonyl, R2 = Me, n = 0, A1 = OSO3Na) (II) showing critical micelle concentration 1.0 + 10-2 mol/L, surface tension (at the critical micelle concentration) 39.6 mN/m, and Krafft point (1%) <0°. II was completely decomposed by 1.0 N HCl at 25° for 1 h.

IT 251453-53-9P
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(preparation and acid decomposition of dioxolanes as (intermediates for) surfactants)

RN 251453-53-9 CAPLUS

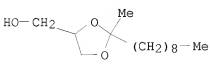
CN 1,2-Ethanediol, 1-(2-methyl-2-nonyl-1,3-dioxolan-4-yl)-, 2-(hydrogen sulfate), sodium salt (1:1) (CA INDEX NAME)



IT 6542-98-9P 251453-52-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and acid decomposition of dioxolanes as (intermediates for) surfactants)

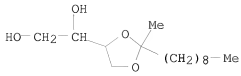
RN 6542-98-9 CAPLUS

CN 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl- (CA INDEX NAME)



RN 251453-52-8 CAPLUS

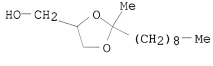
CN 1,2-Ethanediol, 1-(2-methyl-2-nonyl-1,3-dioxolan-4-yl)- (CA INDEX NAME)



L11 ANSWER 5 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:619226 CAPLUS
DOCUMENT NUMBER: 132:238708
TITLE: Synthesis and properties of sulfate- and polyoxyethylene-type chemodegradable surfactants bearing a 1,3-dioxolane ring
AUTHOR(S): Yamamura, Shingo; Ono, Daisuke; Nakamura, Masaki; Shizuma, Motohiro; Tamai, Toshiyuki; Takeda, Tokuji
CORPORATE SOURCE: Osaka Munic. Tech. Res. Inst., Osaka, 536-8553, Japan
SOURCE: Kagaku to Kogyo (Osaka) (1999), 73(9), 419-425
CODEN: KKGOAG; ISSN: 0368-5918
PUBLISHER: Osaka Koken Kyokai
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB Chemodegradable anionic and nonionic surfactants bearing a 1,3-dioxolane ring were prepared by the acid-catalyzed condensation of ketones and glycerol, followed by sulfation or ethoxylation. These surfactants had good surface activity and detergency, and were easily hydrolyzed under acidic conditions.

IT 6542-98-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of chemodegradable surfactants bearing dioxolane ring)
RN 6542-98-9 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl- (CA INDEX NAME)

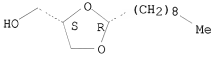


L11 ANSWER 6 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:450274 CAPLUS
DOCUMENT NUMBER: 131:73660
TITLE: Preparation of long-chain cis- and trans-2-alkyl-5-hydroxy-1,3-dioxanes
INVENTOR(S): Piasecki, Andrzej; Burczyk, Bogdan; Sokolowski, Adam; Kotlewska, Urszula
PATENT ASSIGNEE(S): Politechnika Wroclawska, Pol.
SOURCE: Pol., 4 pp.
CODEN: POXXA7
DOCUMENT TYPE: Patent
LANGUAGE: Polish
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

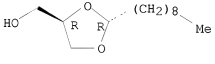
PL 175837 B1 19990226 PL 1994-306515 19941223 <--
PRIORITY APPLN. INFO.: PL 1994-306515 19941223
OTHER SOURCE(S): CASREACT 131:73660; MARPAT 131:73660
AB Diastereoisomers of cyclic glycerol acetals (I; n = 7-13) and their trans-isomers (II), intermediates for the manufacture of surfactants, were prepared by transacetalization of 4-component mixts. of 2 diastereoisomer pairs comprising I, II, cis-2-alkyl-4-hydroxymethyl-1,3-dioxolane (III) and its trans-isomer IV, preferably in hexane/C6H6 mixts., in the presence of p-MeC6H4SO3H catalyst. I and II crystallize together from the reaction mixture and are separated by fractional distillation For example, a solution containing 0.0565 kg of a mixture comprising cis-2-nonyl-5-hydroxy-1,3-dioxane (V) 33, trans-2-nonyl-5-hydroxy-1,3-dioxane (VI) 23, cis-2-nonyl-4-hydroxymethyl-1,3-dioxolane 25 and trans-2-nonyl-4-hydroxymethyl-1,3-dioxolane 19% and 3 + 10-4 kg p-MeC6H4SO3H·H2O in 0.050 dm3 of 80:20 hexane/C6H6 mixture was kept for 2 days at ambient temperature and 5 days at 278 °K to give 0.0352 kg crystals which were separated by filtration, dried a distilled to give V (b. 442 °K/1.33 kPa; m. 320-320.5 °K) and VI (b. 461 °K/1/33 kPa; m. 335-336°).
IT 18445-13-1 18445-14-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of long-chain cis- and trans-2-alkyl-5-hydroxy-1,3-dioxanes by transacetalization with cis- and trans-2-alkyl-4-hydroxymethyl-1,3-dioxolanes)
RN 18445-13-1 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-nonyl-, (2R,4S)-rel- (CA INDEX NAME)

Relative stereochemistry.



RN 18445-14-2 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-nonyl-, (2R,4R)-rel- (CA INDEX NAME)

Relative stereochemistry.



L11 ANSWER 7 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:724201 CAPLUS
DOCUMENT NUMBER: 130:25059
TITLE: Preparation of tartaric acid derivatives, their intermediates, and pharmaceuticals containing them
INVENTOR(S): Ichikawa, Yuichiro; Azuma, Setsuko; Abe, Masatoshi; Takahashi, Wataru; Ikeda, Ryuji; Takashio, Kazutoshi
PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10298177	A	19981110	JP 1997-122907	19970428 <--

PRIORITY APPLN. INFO.: JP 1997-122907 19970428
OTHER SOURCE(S): MARPAT 130:25059

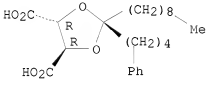
AB Tartaric acid derivs. I [R = H; A1, A2 = H, (substituted) aromatic ring; X1, X2 = (substituted) C1-20 hydrocarbylene; A1X1 = A2X2 ≠ C1-3 alkyl or benzyl] are prepared by cyclocondensation of RO2CCH(OH)CH(OH)CO2R [R = C1-6 alkyl, C7-10 (substituted) aralkyl] with A1X1COX2A2 (A1, A2, X1, X2 = same as I) and hydrolysis of the resulted I [R = C1-6 alkyl, C7-10 (substituted) alkyl]. I (R = H) are useful as squalene synthase inhibitors, anti-infective agents, fungicides, anticholesteremics, hypolipemics, and antiarteriosclerotics. A xylene solution of 1-phenyloctadecan-6-one, L-(+)-diethyl tartrate, and p-MeC6H4SO3H was refluxed in the presence of mol. sieve 4A for 4 h to give 12% (4R,5R)-I [R = Et, X1A1 = (CH2)5Ph, X2A2 = (CH2)11Me], which was hydrolyzed with NaOH in THF at room temperature for 6 h to give 92% I [R = H, X1A1 = (CH2)5Ph, X2A2 = (CH2)11Me] (II). II in vitro inhibited squalene synthase of Aspergillus fumigatus 1776, Candida albicans 1768, or rat liver with IC50 of 0.58, 0.69, or 4.47 μg/mL, resp.

IT 216303-97-8P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of dioxolanedicarboxylic acids as squalane synthase inhibitors)

RN 216303-97-8 CAPLUS

CN 1,3-Dioxolane-4,5-dicarboxylic acid, 2-nonyl-2-(4-phenylbutyl)-, (4R,5R)-(CA INDEX NAME)

Absolute stereochemistry.



L11 ANSWER 8 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:701068 CAPLUS
DOCUMENT NUMBER: 129:317972
ORIGINAL REFERENCE NO.: 129:64841a,64844a
TITLE: 5,6-O-Alkylideneglucono-1(4)-lactones and their derivatives, method for their preparation as well as possibilities for their application
INVENTOR(S): Petit, Serge; Fouquay, Stephane
PATENT ASSIGNEE(S): Ceca S. A., Fr.
SOURCE: Ger. Offen., 18 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

DE 19814786	A1	19981015	DE 1998-19814786		19980402 <--
FR 2761991	A1	19981016	FR 1997-4471		19970411 <--
FR 2761991	B1	19990625			
CA 2231552	A1	19981011	CA 1998-2231552		19980401 <--
GB 2324090	A	19981014	GB 1998-7808		19980409 <--
GB 2324090	B	20001227			
JP 10324683	A	19981208	JP 1998-98851		19980410 <--
JP 2992262	B2	19991220			
US 6251937	B1	20010626	US 1998-58983		19980413 <--

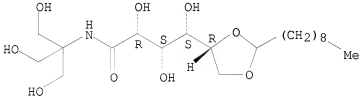
PRIORITY APPLN. INFO.: FR 1997-4471 A 19970411
OTHER SOURCE(S): MARPAT 129:317972

AB Surface-active compds. I and II (R, R1 = H or alkyl, sum of C atoms for R and R1 is 5-42) are manufactured by reaction of glucono-1(5)-lactone with the RCOR' (R, R' = same as in I and II). Surface-active salts are also prepared by reaction of I and II with alkali-metal, alkaline-earth-metal, or quaternary ammonium hydroxides. Surface-active amides are also prepared by reaction of I and II with amines.

IT 214632-06-1P 214632-07-2P
RL: IMF (Industrial manufacture); PREP (Preparation)
(alkylidenegluconolactones and their derivs. with surfactant properties)

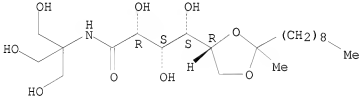
RN 214632-06-1 CAPLUS
CN D-Gluconamide, 5,6-O-decylidene-N-[2-hydroxy-1,1-bis(hydroxymethyl)ethyl]- (CA INDEX NAME)

Absolute stereochemistry.



RN 214632-07-2 CAPLUS
CN D-Gluconamide, N-[2-hydroxy-1,1-bis(hydroxymethyl)ethyl]-5,6-O-(1-methyldecylidene)- (CA INDEX NAME)

Absolute stereochemistry.



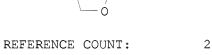
L11 ANSWER 9 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:557417 CAPLUS
DOCUMENT NUMBER: 129:289335
ORIGINAL REFERENCE NO.: 129:58957a,58960a
TITLE: Mass spectrometry of the acetal derivatives of selected generally recognized as safe listed aldehydes with ethanol, 1,2-propylene glycol and glycerol
AUTHOR(S): Woelfel, Keith; Hartman, Thomas G.

CORPORATE SOURCE: M and M Mars, Hackettstown, NJ, 07840, USA
SOURCE: ACS Symposium Series (1998), 705(Flavor Analysis), 193-210
CODEN: ACSMC8; ISSN: 0097-6156
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The FEMA-GRAS list offers flavor chemists a repertoire of nearly 2000 chems. for use in compounding natural and synthetic flavors for the U.S. marketplace. Aldehydes constitute an important class of these potential flavorants and are widely utilized to impart specific nuances. Alcs. such as ethanol, 1,2-propylene glycol and glycerol are commonly employed as solvents in compounded flavor systems due to their low odor and miscibility in a wide range of aqueous and organic matrixes. However, alcs. and aldehydes react rapidly under anhydrous conditions to form acetal derivs. which often possess different sensory properties. This well known reaction is reversible and its equilibrium is influenced by time, temperature, pH and moisture content. Mass spectra of acetals are currently under represented in com. databases and few literature refs. are available. Our investigation involved a systematic mass spectrometric study of the acetal derivs. of selected GRAS aldehydes reacted with ethanol, 1,2-propylene glycol and glycerol. Aldehydes from different chemical classes representing saturated and unsatd. aliphatics, aroms., heterocyclics, terpenoids and others were included for characterization. The corresponding acetals were synthesized, analyzed by GC-MS in electron ionization mode and their retention indexes on a non-polar (polydimethylsiloxane) capillary column were determined A database of mass spectra was produced which includes many previously unreported species. In total, over 60 individual mass spectra were recorded. The characteristic mass spectral fragmentation pathways for each class of acetal are described.

IT 1020-81-1P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(mass spectrometry of the acetal derivs. of selected generally recognized as safe listed aldehydes with ethanol, 1,2-propylene glycol and glycerol)

RN 1020-81-1 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-nonyl- (CA INDEX NAME)

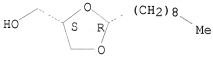


REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 10 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:763357 CAPLUS
DOCUMENT NUMBER: 126:117936
ORIGINAL REFERENCE NO.: 126:22765a,22768a
TITLE: Acetals and ethers. Part XXII. An efficient method for the preparation of pure long-chain cis- and trans-2-n-alkyl-5-hydroxy-1,2-dioxanes
AUTHOR(S): Piasecki, Andrzej; Burczyk, Bogdan; Sokolowski, Adam; Kotlewska, Urszula
CORPORATE SOURCE: Inst. Org. Polymer Technol., Technical Univ. Wroclaw, Wroclaw, 50-370, Pol.
SOURCE: Synthetic Communications (1996), 26(22),

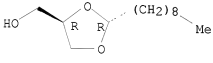
4145-4151
CODEN: SYNCAV; ISSN: 0039-7911
PUBLISHER: Dekker
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The title compds., e.g., I (R = n-heptyl, n-nonyl, n-undecyl), were obtained with high yields from four-component mixts. of glycerol acetals by combining the transacetalization reaction with the crystallization process followed by fractional distillation
IT 18445-13-1P 18445-14-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of long-chain alkylhydroxydioxanes)
RN 18445-13-1 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-nonyl-, (2R,4S)-rel- (CA INDEX NAME)

Relative stereochemistry.



RN 18445-14-2 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-nonyl-, (2R,4R)-rel- (CA INDEX NAME)

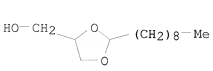
Relative stereochemistry.



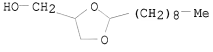
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 11 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:693638 CAPLUS
DOCUMENT NUMBER: 126:103649
ORIGINAL REFERENCE NO.: 126:19997a
TITLE: Polymer-supported acetals as systems for protection and controlled delivery of volatile aldehydes
AUTHOR(S): Ceita, L.; Gavina, P.; Lopez Lavernia, N.; Llopis, C.; Mestres, R.; Tortajada, A.
CORPORATE SOURCE: Departament de Quimica Organica, Universitat de Valencia, Dr. Moliner 50, Burjassot, 46100, Valencia, Spain
SOURCE: Reactive & Functional Polymers (1996), 31(3), 265-272
CODEN: RFPOF6; ISSN: 1381-5148
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Polymer-supported acetals, 2-nonyl-1,3-dioxolane-4-methanol (I) and 2-nonyl-1,3-dioxolane-4-ethanol were prepared on an Merrifield resin support. Hydrolysis of I gave decanal. Decanal was also prepared by hydrolysis of polymer-supported 2-nonyl-4-phenyl-1,3-dioxolane.
IT 1020-81-1DP, polymer-supported 1020-81-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of aldehydes via hydrolysis of polymer-supported acetals)
RN 1020-81-1 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-nonyl- (CA INDEX NAME)

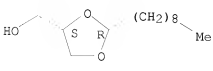


RN 1020-81-1 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-nonyl- (CA INDEX NAME)



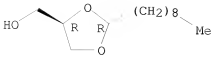
L11 ANSWER 12 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:409101 CAPLUS
DOCUMENT NUMBER: 125:195472
ORIGINAL REFERENCE NO.: 125:36611a,36614a
TITLE: Carboxy dioxolanes as systems for protection and controlled release of volatile aldehydes
AUTHOR(S): Gavina, Pablo; Lavernia, Natividad Lopez; Mestres, Ramon; Munoz, Elena
CORPORATE SOURCE: Dep. Quim. Org., Univ. Valencia, Valencia, 46100, Spain
SOURCE: Journal of Chemical Research, Synopses (1996), (6), 274-275
CODEN: JRPSDC; ISSN: 0308-2342
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 125:195472
AB Four cyclic acetals I, II, III, and IV bearing free carboxy groups have been prepared I, III and IV do not hydrolyze in solution, but release aldehydes in a stream of moist air, while II affords a slow release of aldehyde both in solution and in contact with moist air.
IT 18445-13-1P 18445-14-2P 180902-60-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(carboxy dioxolanes as systems for protection and controlled release of volatile aldehydes)
RN 18445-13-1 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-nonyl-, (2R,4S)-rel- (CA INDEX NAME)

Relative stereochemistry.



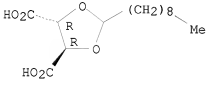
RN 18445-14-2 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-nonyl-, (2R,4R)-rel- (CA INDEX NAME)

Relative stereochemistry.

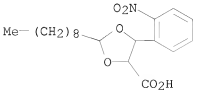


RN 180902-60-7 CAPLUS
CN 1,3-Dioxolane-4,5-dicarboxylic acid, 2-nonyl-, [4R-(2α,4α,5β)]- (9CI) (CA INDEX NAME)

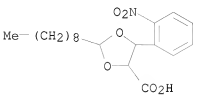
Absolute stereochemistry.



L11 ANSWER 13 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1995:954293 CAPLUS
DOCUMENT NUMBER: 124:144911
ORIGINAL REFERENCE NO.: 124:26949a,26952a
TITLE: Polymer-supported o-nitrophenylethylene glycols for photoremovable protection of aldehydes
AUTHOR(S): Aurell, Maria J.; Boix, Carmen; Ceita, M. Luisa; Llopis, Carmen; Tortajada, Amparo; Mestres, Ramon
CORPORATE SOURCE: Dep. Quim. Org., Univ. Valencia, Valencia, 46100, Spain
SOURCE: Journal of Chemical Research, Synopses (1995), (11), 452-3
CODEN: JRPSDC; ISSN: 0308-2342
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Polymer-supported nitrophenylethanediols and their related dioxolanes are prepared from carboxylic nitrophenylethanediols or from carboxylic nitrophenyldioxolanes and release aldehydes on illumination with visible light both in benzene and in a stream of air.
IT 173414-11-4DP, Polymer supported 173414-11-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(polymer-supported nitrophenylethylene glycols for photoremovable protection of aldehydes)
RN 173414-11-4 CAPLUS
CN 1,3-Dioxolane-4-carboxylic acid, 5-(2-nitrophenyl)-2-nonyl- (CA INDEX NAME)



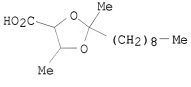
RN 173414-11-4 CAPLUS
CN 1,3-Dioxolane-4-carboxylic acid, 5-(2-nitrophenyl)-2-nonyl- (CA INDEX NAME)



L11 ANSWER 14 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1994:194530 CAPLUS
DOCUMENT NUMBER: 120:194530
ORIGINAL REFERENCE NO.: 120:34387a,34390a
TITLE: Studies on synthesis and properties of surfactants with specific functions
AUTHOR(S): Yamamura, Shingo
CORPORATE SOURCE: Osaka Munic. Tech. Res. Inst., Osaka, 536, Japan
SOURCE: Yukagaku (1994), 43(1), 2-9
CODEN: YKGKAM; ISSN: 0513-398X
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

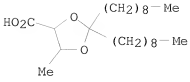
AB Novel surfactants with specific functions were synthesized from inexpensive, com. available bulk chems. by convenient synthetic methods. All were characterized by features such as chemical degradability, catalytic activity for a halide displacement reaction (Finkelstein reaction), ability to disperse lime soap, and complex with alkali metal cations. Applications for emulsion polymerization, surface-active properties, stability consts. of complexes with alkali metal ions, and solubilization of alkali metal picrates in organic solvents were studied.

IT 123728-65-4P 123728-70-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and surfactant and catalytic properties of)
RN 123728-65-4 CAPLUS
CN 1,3-Dioxolane-4-carboxylic acid, 2,5-dimethyl-2-nonyl-, sodium salt (1:1) (CA INDEX NAME)



● Na

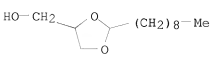
RN 123728-70-1 CAPLUS
CN 1,3-Dioxolane-4-carboxylic acid, 5-methyl-2,2-dinonyl-, sodium salt (1:1) (CA INDEX NAME)



L11 ANSWER 15 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1994:137698 CAPLUS
DOCUMENT NUMBER: 120:137698
ORIGINAL REFERENCE NO.: 120:24217a,24220a
TITLE: Synthesis and hydrolysis of chemodegradable cationic surfactants containing the 1,3-dioxolane moiety
AUTHOR(S): Wilk, Kazimiera A.; Bieniecki, Albert; Burczyk, Bogdan; Sokolowski, Adam
CORPORATE SOURCE: Inst. Org. Polym. Technol., Tech. Univ. Wroclaw, Wroclaw, 50-370, Pol.
SOURCE: Journal of the American Oil Chemists' Society (1994), 71(1), 81-5
CODEN: JAOCA7; ISSN: 0003-021X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB In acid-catalyzed reactions of RCHO (R = n-C7H15, n-C9H19, n-C11H23, n-C13H27), and 7-tridecanone with 3-chloro-1,2-propane-diol, 2-alkyl- and 2,2-dihexyl-4-(chloromethyl)-1,3-dioxolanes were obtained. They were reacted with Me2NH to obtain, resp., 2-alkyl- and [(2,2-dihexyl-1,3-dioxolan-4-yl)methyl]dimethylamines, which were quaternized with MeBr to obtain the desired ammonium bromides. The structure and purity of the compds. was proved by mass spectrometry and proton NMR spectroscopy. Addnl., [(2-methyl-1,3-dioxolan-4-yl)methyl]trimethylammonium bromide and [(2,2-dimethyl-1,3-dioxolan-4-yl)methyl]trimethylammonium bromide were synthesized as nonaggregating stds. Hydrolysis reactions of the synthesized ammonium bromides were performed by 0.1 M HCl in 50 volume% aqueous 1,4-dioxane at 50, 60, and 70°. Rate consts. of hydrolysis reactions were determined by observing carbonyl group formation at 280 nm. The hydrolytic reactivity of the studied quaternary ammonium surfactants was determined under unaggregated conditions. The length of the 2-alkyl group had a minor effect on rate constant values. The influence of various substituents at the C-4 atom of the 2-nonyl-1,3-dioxolan-4-yl derivs. on the rate consts. was also investigated.

IT 1020-81-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrolysis of, kinetics and thermodn. of)
RN 1020-81-1 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-nonyl- (CA INDEX NAME)



L11 ANSWER 16 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

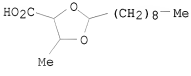
ACCESSION NUMBER: 1992:216772 CAPLUS
DOCUMENT NUMBER: 116:216772
ORIGINAL REFERENCE NO.: 116:36721a,36724a
TITLE: Synthesis and properties of carboxylate-type surfactants with a 1,3-dioxolane ring from aldehyde
AUTHOR(S): Takeda, Tokuji; Yamamura, Shingo; Tanaka, Keiko; Nakamura, Masaki
CORPORATE SOURCE: Osaka Munic. Tech. Res. Inst., Osaka, 536, Japan
SOURCE: Kagaku to Kogyo (Osaka, Japan) (1991), 65(9), 389-92
CODEN: KKGOAG; ISSN: 0368-5918
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB Na 2-(Cn-alkyl)-5-methyl-1,3-dioxolane-4-carboxylates (I; n = 9, 11) were synthesized by acetalization of decanal or dodecanal with Et 2,3-epoxybutyrate and subsequent saponification of the resulting 2-alkyl-4-(ethoxycarbonyl)-5-methyl-1,3-dioxolanes with NaOH. I showed good surface-tension-lowering effects but the degradability of these surfactants under acidic conditions was not very good.

IT 141071-38-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and surfactant properties of)

RN 141071-38-7 CAPLUS

CN 1,3-Dioxolane-4-carboxylic acid, 5-methyl-2-nonyl-, sodium salt (1:1) (CA INDEX NAME)



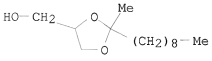
● Na

L11 ANSWER 17 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1992:62074 CAPLUS
DOCUMENT NUMBER: 116:62074
ORIGINAL REFERENCE NO.: 116:10695a,10698a
TITLE: Synthesis and properties of destructible anionic surfactants with a 1,3-dioxolane ring and their use as emulsifier for emulsion polymerization
AUTHOR(S): Yamamura, Shingo; Nakamura, Masaki; Kasai, Kiyoshi; Sato, Hozumi; Takeda, Tokuji
CORPORATE SOURCE: Osaka Munic. Tech. Res. Inst., Osaka, 536, Japan
SOURCE: Yukagaku (1991), 40(11), 1002-6
CODEN: YKGKAM; ISSN: 0513-398X
DOCUMENT TYPE: Journal
LANGUAGE: English

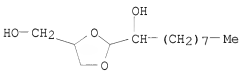
AB Degradable anionic surfactants with a 1,3-dioxolane ring were prepared and their surface properties determined These surfactants contain a sulfonate group as the anionic hydrophile, and readily decompose under weakly acidic conditions. As surfactants for emulsion polymerization reactions, they are considerably superior to the conventional surfactants which give polymers containing higher contents of metals than the above surfactants.

IT 6542-98-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)
(preparation and reaction of, with butanesultone)
RN 6542-98-9 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl- (CA INDEX NAME)



L11 ANSWER 18 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1992:2524 CAPLUS
DOCUMENT NUMBER: 116:2524
ORIGINAL REFERENCE NO.: 116:507a,510a
TITLE: Products of the reductive degradation of α-(acyloxy)plasmologens from bovine lipids with lithium aluminum hydride
AUTHOR(S): Lutz, Arnulf; Knoerr, Walter; Spiteller, Gerhard
CORPORATE SOURCE: Univ. Bayreuth, Bayreuth, D-8580, Germany
SOURCE: Liebigs Annalen der Chemie (1991), (11), 1151-5
CODEN: LACHDL; ISSN: 0170-2041
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 116:2524
AB If bovine tissue lipids are treated with LiAlH4, two types of unexpected products are detectable: 1-acylglycerols and α-hydroxylated glycerol acetals. This fact was assumed to indicate the presence of α-(acyloxy)plasmalogens, previously unknown class of mammalian tissue lipids. To confirm this assumption, the model compound possessing an enol ether-enol acetate structure was synthesized and treated with LiAlH4. Corresponding derivs. of 1-acylglycerols as well as α-hydroxylated glycerol acetals were produced, thus confirming the existence of α-(acyloxy)plasmalogens in tissue of natural origin. They are detectable by GC and GC-mass spectrometry after conversion of free hydroxy groups with diazomethane/silica gel into the corresponding Me ether derivs.
IT 136132-46-2P
RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, in acyloxyplasmalogen reductive degradation)
RN 136132-46-2 CAPLUS
CN 1,3-Dioxolane-2,4-dimethanol, α2-octyl- (CA INDEX NAME)



L11 ANSWER 19 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1991:6880 CAPLUS
DOCUMENT NUMBER: 114:6880
ORIGINAL REFERENCE NO.: 114:1355a,1358a
TITLE: A new method for the stereochemical analysis of

acyclic terpenoid carbonyl compounds

AUTHOR(S): Knierzinger, Andreas; Walther, Willy; Weber, Beat; Mueller, Robert Karl; Netscher, Thomas

CORPORATE SOURCE: Abt. Vitam. Ernaehrungsforsch., F. Hoffmann-La Roche A.-G., Basel, CH-4002, Switz.

SOURCE: Helvetica Chimica Acta (1990), 73(4), 1087-107
CODEN: HCACAV; ISSN: 0018-019X

DOCUMENT TYPE: Journal

LANGUAGE: German

OTHER SOURCE(S): CASREACT 114:6880

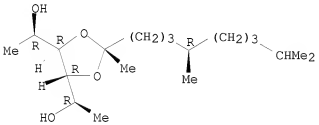
AB A new method for the determination of the enantiomeric and diastereoisomeric composition of terpenoid carbonyl compds. is presented. Separation of the diastereoisomeric diisopropyl (+)-L-tartrate acetals derived from dihydrocitronellal, hexahydropseudoionone, and hexahydrofarnesylacetone, the C10, C13, C15, and C18 intermediates in various syntheses of naturally occurring tocopherols and vitamin K1, was achieved by capillary GC on a cyanopropylsilicon-coated glass column under standardized conditions. This technique, presenting a significant improvement over existing methodologies, is considered to be particularly useful for the anal. of highly enriched samples, typically obtained by present-day asym. synthesis. With reproducibilities of ±0.3%, and, therefore, safe for routine anal., the complete stereochem. characterization of terpenoids with 15 and 18 C-atoms bearing two stereogenic centers is performed in a single operation for the first time.

IT 130678-41-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and separation of, from diastereomer, by gas chromatog.)

RN 130678-41-0 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-(4,8-dimethylnonyl)-α,α',2-trimethyl-, [4R-[2α(R*),4α(R*),5β(R*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

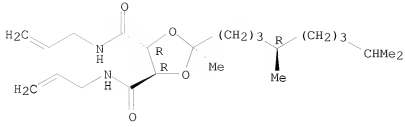


IT 130678-37-4P 130678-70-5P 130678-74-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and separation of, from diastereomers by gas chromatog.)

RN 130678-37-4 CAPLUS

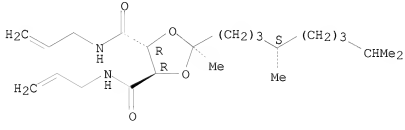
CN 1,3-Dioxolane-4,5-dicarboxamide, 2-(4,8-dimethylnonyl)-2-methyl-N,N'-di-2-propenyl-, [4R-[2α(R*),4α,5β]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



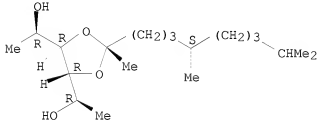
RN 130678-70-5 CAPLUS
CN 1,3-Dioxolane-4,5-dicarboxamide, 2-(4,8-dimethylnonyl)-2-methyl-N,N'-di-2-propenyl-, [4R-[2α(S*),4α,5β]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



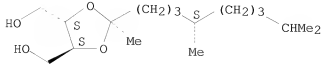
RN 130678-74-9 CAPLUS
CN 1,3-Dioxolane-4,5-dimethanol, 2-(4,8-dimethylnonyl)-α,α',2-trimethyl-, [4R-[2α(S*),4α(R*),5β(R*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



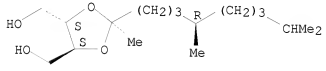
IT 130678-60-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, silylation, O-acylation, and O-alkylation of, by methallyl chloride)
RN 130678-60-3 CAPLUS
CN 1,3-Dioxolane-4,5-dimethanol, 2-(4,8-dimethylnonyl)-2-methyl-, [4S-[2α(R*),4α,5β]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



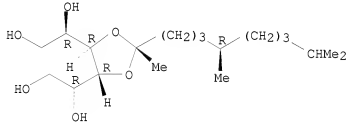
IT 130678-27-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation, silylation, O-acylation, and O-alkylation of, with β-methallyl chloride)
RN 130678-27-2 CAPLUS
CN 1,3-Dioxolane-4,5-dimethanol, 2-(4,8-dimethylnonyl)-2-methyl-, [4S-[2α(S*),4α,5β]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



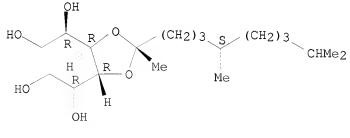
IT 130678-40-9P 130678-73-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation, tosylation, and reduction of)
RN 130678-40-9 CAPLUS
CN 1,3-Dioxolane-4,5-diethanol, 2-(4,8-dimethylnonyl)-β,β'-dihydroxy-2-methyl-, [4R-[2α(R*),4α(R*),5β(R*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 130678-73-8 CAPLUS
CN 1,3-Dioxolane-4,5-diethanol, 2-(4,8-dimethylnonyl)-β,β'-dihydroxy-2-methyl-, [4R-[2α(S*),4α(R*),5β(R*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L11 ANSWER 20 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1990:591804 CAPLUS

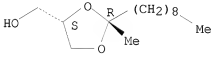
DOCUMENT NUMBER: 113:191804
ORIGINAL REFERENCE NO.: 113:32485a,32488a
TITLE: Aminoacylates and aminocarbamates of 2-substituted 4-hydroxymethyl-1,3-dioxolanes as ammonium salts. A new series of PAF antagonists
AUTHOR(S): Broquet, C.; Auclair, E.; Blavet, N.; Touvay, C.; Braquet, P.
CORPORATE SOURCE: Les Ulis, 91952, Fr.
SOURCE: European Journal of Medicinal Chemistry (1990), 25(3), 235-40
CODEN: EJMCA5; ISSN: 0223-5234
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 113:191804

AB The title compds. I [R = H, Me, Pr; R1 = (CH2)16Me, (CH2)8Me; R2 = R3 = H; R2R3 = CH:CHCH:CH; n = 3, 4, 5, 10; X = Cl, Br] and II (n = 5, X = Br; n = 2, X = Cl) were prepared from glycerol. All I and II inhibited PAF-induced blood platelet aggregation in vitro. In the guinea pig most compds. inhibited PAF-induced bronchoconstriction, thrombocytopenia, and leukopenia. I [R = Me, R1 = (CH2)16Me, R2R3 = H2, CH:CHCH:CH, n = 5, X = Br] were most active.

IT 130080-46-5P 130080-81-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with haloalkanoyl chlorides)

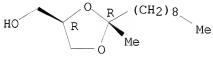
RN 130080-46-5 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl-, (2R,4S)-rel- (CA INDEX NAME)

Relative stereochemistry.



RN 130080-81-8 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl-, (2R,4R)-rel- (CA INDEX NAME)

Relative stereochemistry.



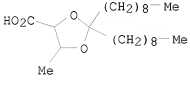
L11 ANSWER 21 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1989:616323 CAPLUS
DOCUMENT NUMBER: 111:216323
ORIGINAL REFERENCE NO.: 111:35891a,35894a
TITLE: Synthesis and properties of destructible anionic and cationic surfactants with a 1,3-dioxolane ring
AUTHOR(S): Yamamura, Shingo; Nakamura, Masaki; Takeda, Tokuji
CORPORATE SOURCE: Osaka Munic. Tech. Res. Inst., Osaka, 536, Japan
SOURCE: JAOCS, J. Am. Oil Chem. Soc. (1989), 66(8), 1165-70
CODEN: JJASDH
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A convenient synthetic method for the preparation of degradable surfactants containing a 1,3-dioxolane ring with various substituents is described. The substituents include carboxylate, quaternary ammonium, and several aliphatic alkyl groups, such as hydrophilic or hydrophobic groups. These novel surfactants have good surface activity, and are easily hydrolyzed under acidic conditions. They also catalyze aliphatic halide substitution.

IT 123728-70-1P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and characterization of)

RN 123728-70-1 CAPLUS

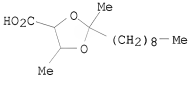
CN 1,3-Dioxolane-4-carboxylic acid, 5-methyl-2,2-dinonyl-, sodium salt (1:1) (CA INDEX NAME)



IT 123728-65-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and surfactant properties of)

RN 123728-65-4 CAPLUS

CN 1,3-Dioxolane-4-carboxylic acid, 2,5-dimethyl-2-nonyl-, sodium salt (1:1) (CA INDEX NAME)



L11 ANSWER 22 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1987:156782 CAPLUS

DOCUMENT NUMBER: 106:156782

ORIGINAL REFERENCE NO.: 106:25529a,25532a

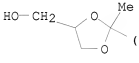
TITLE: Anticonvulsant O-alkyl sulfamates. 2,3:4,5-Bis-O-(1-methylethylidene)-β-D-fructopyranose sulfamate and related compounds

AUTHOR(S): Maryanoff, Bruce E.; Nortey, Samuel O.; Gardocki, Joseph F.; Shank, Richard P.; Dodgson, Susanna P.

CORPORATE SOURCE: Dep. Chem. Biol. Res., McNeil Pharm., Spring House, PA, 19477, USA

SOURCE: Journal of Medicinal Chemistry (1987), 30(5), 880-7
CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 106:156782
AB The title compound [I; R = SO2NH2, topiramate, (II)], its analogs and related compds. were prepared mostly from the corresponding alcs. by either (1) treating the alc. with the appropriate sulfamoyl chloride in the presence of NaH, or (2) treating the alc. with SO2Cl2 in the presence of pyridine and treating the resultant chlorosulfate with an appropriate amine, or (3) treating the alc.-derived chlorosulfate with NaCN and reducing the resulting azidosulfate with Cu in MeOH or by catalytic hydrogenation with PdlC. Thus, fructopyranose I (R = H) was treated with NaH and NH2SO2Cl in DMF to give 46% II. Most of the compds. prepared were tested for anticonvulsant activity. II showed potent anticonvulsant activity analogous to that of phenytoin. Structure-activity relationship is discussed.
IT 6542-98-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(sulfamoylation of)
RN 6542-98-9 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl- (CA INDEX NAME)

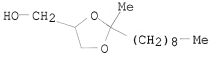


L11 ANSWER 23 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1986:478920 CAPLUS
DOCUMENT NUMBER: 105:78920
ORIGINAL REFERENCE NO.: 105:12809a,12812a
TITLE: Anticonvulsant dioxolanemethyl sulfamates
INVENTOR(S): Maryanoff, Bruce E.; Nortey, Samuel O.
PATENT ASSIGNEE(S): McNeilab, Inc., USA
SOURCE: U.S., 5 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

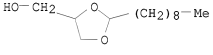
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4591601	A	19860527	US 1985-722869	19850412 <--
JP 61263973	A	19861121	JP 1986-80274	19860409 <--
CA 1252109	A1	19890404	CA 1986-506299	19860410 <--
DK 8601675	A	19861013	DK 1986-1675	19860411 <--
AU 8656010	A	19861016	AU 1986-56010	19860411 <--
AU 579463	B2	19881124		
EP 198686	A2	19861022	EP 1986-302703	19860411 <--
EP 198686	A3	19871021		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
ZA 8602744	A	19871125	ZA 1986-2744	19860411 <--

PRIORITY APPLN. INFO.: US 1985-722869 A 19850412
OTHER SOURCE(S): CASREACT 105:78920; MARPAT 105:78920
AB Title compds. I (R1, R2 = alkyl; R1R2 = alkylene), useful as anticonvulsants, were prepared 2,2-Dimethyl-1,3-dioxolane-4-methanol was treated with NaH and H2NSO2Cl in DMF to give I (R1 = R2 = Me), which blocked the tonic extensor seizure caused by application of an elec. shock

to mice via corneal electrodes with ED50 = 104.9 mg/kg, i.p.
IT 6542-98-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(sulfamation of)
RN 6542-98-9 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl- (CA INDEX NAME)



L11 ANSWER 24 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1981:174943 CAPLUS
DOCUMENT NUMBER: 94:174943
ORIGINAL REFERENCE NO.: 94:28583a,28586a
TITLE: Chemical structure and surface activity. Part III. Synthesis and surface activity of ethoxylated 2-alkyl-4-hydroxymethyl-1,3-dioxolanes
AUTHOR(S): Weclas, L.; Burczyk, B.
CORPORATE SOURCE: Inst. Org. Polym. Technol., Tech. Univ. Wroclaw, Wroclaw, Pol.
SOURCE: Tenside Detergents (1981), 18(1), 19-22
CODEN: TSDTAZ; ISSN: 0040-3490
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Surfactant dioxolanes I (R = heptyl, nonyl, undecyl, tridecyl, pentadecyl, m = 7, 10) were prepared by addition of 7 and 10 mol of ethylene oxide to the corresponding II. Surface tension, wettability, foaming power, and emulsification activity were determined
IT 1020-81-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with ethylene oxide)
RN 1020-81-1 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-nonyl- (CA INDEX NAME)



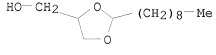
L11 ANSWER 25 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1980:200139 CAPLUS
DOCUMENT NUMBER: 92:200139
ORIGINAL REFERENCE NO.: 92:32427a,32430a
TITLE: Chemical structure and surface activity. Part II: Synthesis and surface properties of 2-alkyl-4-hydroxymethyl-1,3-dioxolanes at the oil-water interface
AUTHOR(S): Burczyk, Bogdan; Weclas, Ludmila
CORPORATE SOURCE: Inst. Technol. Org. Tworzyw Sztucznych, Politech. Wroclawska, Wroclaw, 50-370, Pol.
SOURCE: Tenside Detergents (1980), 17(1), 21-4
CODEN: TSDTAZ; ISSN: 0040-3490
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The reaction of 4-acetoxymethyl-2,2-dimethyl-1,3-dioxolane [14739-11-8] with Me(CH2)nCHO (n = 6, 8, 10, 12, or 14) in benzene containing p-MeC6H4SO3H, followed by hydrolysis, gave 64-85% yield of I (R = C7, C9, C11, C13, or C15 alkyl) (predominately trans) with the formation of ≤15% byproduct dioxane derivs. The I were more hydrophobic than the corresponding α-monoglycerides. The I adsorption at oil-water interfaces was similar to that of long-chain alcs. The ability to lower interfacial tension decreased with increasing length of the R group. The I apparently form micelles (or aggregates) in polar and nonpolar organic solvents.

IT 1020-81-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and surfactant properties of)

RN 1020-81-1 CAPLUS

CN 1,3-Dioxolane-4-methanol, 2-nonyl- (CA INDEX NAME)



L11 ANSWER 26 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1977:551590 CAPLUS

DOCUMENT NUMBER: 87:151590

ORIGINAL REFERENCE NO.: 87:23971a,23974a

TITLE: Acrolein acetals and their derivatives. (II). The structure and isomerization of glycerol acetals

AUTHOR(S): Stefanovic, Gjorgje; Petrovic, Gjorgje

CORPORATE SOURCE: Inst. Chem., Fac. Sci., Belgrade, Yugoslavia

SOURCE: Bulletin - Academie Serbe des Sciences et des Arts, Classe des Sciences Mathematiques et Naturelles: Sciences Naturelles (1976), 54(14), 53-73
CODEN: BASNA6; ISSN: 0352-5740

DOCUMENT TYPE: Journal

LANGUAGE: English

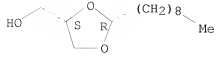
AB The reaction of RCHO (R = C6H13, n-C7H15, n-C7H19, n-C11H23) with HOCH2CH(OH)CH2OH gives mixts. of the corresponding cis- and trans-I with cis- and trans-II. The equilibrium cis-II-trans-II isomerization occurs without ring opening in a process catalyzed by hydride donors or acceptors, in which H- is abstracted from C-2. The isomerization of trans-I to cis-I follows a similar path; this reaction is irreversible as the H-bonded axial OH group in trans-I shields the C-2 carbonium ion and allows hydride abstraction to form only the cis product.

IT 18445-13-1P 18445-14-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and isomerization of, mechanism of)

RN 18445-13-1 CAPLUS

CN 1,3-Dioxolane-4-methanol, 2-nonyl-, (2R,4S)-rel- (CA INDEX NAME)

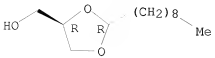
Relative stereochemistry.



RN 18445-14-2 CAPLUS

CN 1,3-Dioxolane-4-methanol, 2-nonyl-, (2R,4R)-rel- (CA INDEX NAME)

Relative stereochemistry.



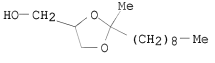
L11 ANSWER 27 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1976:407606 CAPLUS
DOCUMENT NUMBER: 85:7606
ORIGINAL REFERENCE NO.: 85:1231a,1234a
TITLE: Dioxolane derivatives having surfactant properties
INVENTOR(S): McCoy, David R.
PATENT ASSIGNEE(S): Texaco Inc., USA
SOURCE: U.S., 6 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3948953	A	19760406	US 1969-847729	19690805 <--
US 3909460	A	19750930	US 1973-387426	19730810 <--
PRIORITY APPLN. INFO.:			US 1969-847729 A2	19690805

AB The reaction of glycerol [56-81-5] with C7-15 aliphatic ketones gave 2,2-dialkyl-4-hydroxymethyl-1,3-dioxolanes which were ethoxylated, sulfated (with 1:1 molar ClSO3H-Et2O [59263-80-8]), or phosphorylated with POCl3 to prepare surfactants with higher detergency than com. ethoxylated alcs. or sulfates of ethoxylated alcs. Thus, a mixture of glycerol 137, p-MeC6H4SO3H 5, benzene 500, and C10-15 aliphatic ketones 260 parts was heated 65 hr to prepare a mixture of 2,2-dialkyl-4-hydroxymethyl-1,3-dioxolanes which were mixed with 1% KOH and treated with ethylene oxide [75-21-8] (5.3 moles/mole dioxolane) to prepare a surfactant.

IT 6542-98-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and ethoxylation of)

RN 6542-98-9 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl- (CA INDEX NAME)



L11 ANSWER 28 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1975:607840 CAPLUS
DOCUMENT NUMBER: 83:207840
ORIGINAL REFERENCE NO.: 83:32723a,32726a
TITLE: Detergent compositions containing dioxolanes as surfactants
INVENTOR(S): McCoy, David R.

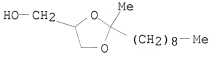
PATENT ASSIGNEE(S): Texaco Inc., USA
SOURCE: U.S., 6 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3909460	A	19750930	US 1973-387426	19730810 <--
US 3948953	A	19760406	US 1969-847729	19690805 <--
PRIORITY APPLN. INFO.:			US 1969-847729 A2	19690805

AB 2-Methyl-4-methylol-2-nonyl-1,3-dioxolane [6542-98-9] and similar 2,2-dialkyl 4-methylol-1,3-dioxolanes, prepared from glycerol [56-81-5] and C13-15 dialkyl ketones, were ethoxylated or sulfated to prepare surfactants with good solubility in water, good detergency in laundering, and light color. Thus, glycerol was condensed with C10-15 dialkyl ketones in benzene containing p-MeC6H4SO3H to prepare 2,2-dialkyl-4-methylol-1,3-dioxolanes which reacted with 5.2 moles ethylene oxide [75-21-8] to prepare a surfactant.

IT 6542-98-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(ethoxylation and sulfation of)

RN 6542-98-9 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl- (CA INDEX NAME)



L11 ANSWER 29 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1968:48985 CAPLUS
DOCUMENT NUMBER: 68:48985
ORIGINAL REFERENCE NO.: 68:9451a,9454a
TITLE: Structure of glycerol acetals
AUTHOR(S): Stefanovic, Djordje; Petrovic, Dj.
CORPORATE SOURCE: Univ. Belgrade, Belgrade, Yugoslavia
SOURCE: Tetrahedron Letters (1967), (33), 3153-9
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English

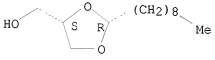
AB Glycerol treated with successive addns. of normal aliphatic aldehydes (C7-C14); the mixture refluxed in xylene in the presence of p-MeC6H4SO3H, heated alone in the presence or absence of catalyst, or refluxed in C5H5N without catalyst; the water of formation eliminated and the products distilled in vacuo gave the following condensation products (I) (n, b.p., and n20D given): 5 (Ia), b0.5 102-14°, 1.4502; 6, b30 183-9°, 1.4509; 7, b15 169-79°, 1.4524; 8, b15 175-85°, 1.4540; 9, b14 182-92, 1.4553; 10 (Ib), b1.0 174-86°, 1.4556; 11, b0.4 170-82° (m. 16-20°), -; 12, b0.7 199-218° (m. 18-22°), -. The separation of all 4 possible geometrical isomers of Ia and of Ib was carried out successfully by chromatog. and by distillation on a Podbielniak column. Thin layer chromatog. on silica gel, elution with 40:7:4 ligroine-Me3COH-EtOAc, and development with iodine, phosphomolybdic acid, and (or) SbCl5 showed the presence of 2 isomers (II, III) as major

product when the acetals were prepared under kinetic control, whereas the isomers (IV, V) predominated when the synthesis was under thermodynamic control. The 4 acetals were separated both by gas chromatog. and column chromatog. on silica gel. The separation was effected by distillation and gave a series of isomers I-IV from each of the glycerol acetals. Determination of the ring structure by the method of Hill, Whelen, and Hibbert (CA 22: 3132) showed that IV and V were dioxanes and II and III had dioxolane structure. The determination of the stereochemistry of the 4 isomers of Ia was carried out by ir and N.M.R. spectral analysis.

IT 18445-13-1P 18445-14-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

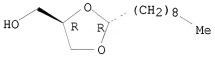
RN 18445-13-1 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-nonyl-, (2R,4S)-rel- (CA INDEX NAME)

Relative stereochemistry.



RN 18445-14-2 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-nonyl-, (2R,4R)-rel- (CA INDEX NAME)

Relative stereochemistry.



=> FIL STNGUIDE

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	256.89	776.08
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-32.80	-61.60

FILE 'STNGUIDE' ENTERED AT 08:44:08 ON 14 OCT 2008

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Oct 10, 2008 (20081010/UP